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THE MARYLAND FARMER:

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Agriculture, Horticulture, and Rural Economy.

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THE PARIS EXPOSITION.

THE HORTICULTURAL DISPLAY. RARE PLANTS
AND FLOWERS. THE LATEST IMPROVEMENTS
IN GREEN-HOUSES. THE TOBACCO PAVIL-
LION. THE MANUFACTURE OF CIGA-
RETTES AND SNUFF, ETC.,

From our regular Correspondent :

12 Boulevard du Temple, Paris, Oct. 3, 1878.

Not the least charming portions of the Exhibition are the floral decorations. These not only please the senses and refresh the sight, but illustrate an important and widely extended commercial industry. The principal plants which strike the eye in the Champ de Mars are the magnificent lines of magnolias, with their thick glistening foliage, whose luxuriant white flowers exhale such delicious perfume during the hot summer months. This beautiful tree, which originally comes from Carolina, now forms one of the greatest ornaments in the gardens. Amongst the large trees are many varieties of conifers and the arancaria from Chili, comparatively recently acclimatized in Europe, and remarkable for the regularity of its vertical branches. One at least of the specimens bears cones, although it is unusual for the arancaria to bear fruit upon French soil. Thick groups of every kind of fir and pine tree cast a grateful shade upon the verdure of the lawns. Amongst the beautiful shrubs and evergreens, the lovely rose of the Alps, the rhododendron, lately bloomed in every shade of red, purple, pink, crimson and white, the delicate and tender tints hanging in huge masses amongst the dark green foliage. The long rose beds have given a fine show of the queen of flowers. The gardens abound in numerous fruit trees, and the cloud white blossom which made the park fragrant and beautiful in spring, has now given way to an abundance of fruit. Nearly every variety of tree is to be met with in the parks, or adorns the gardens with refreshing foliage.

There is a large variety of models of green-houses and conservatories. One of these, noticeable for its size and interior conveniences, is framed of wood rendered indestructible by a process patented in England. The roof and sides open for ventilation from the level of the ground. The outer air passes through perforated iron, and is brought in contact with a heating apparatus placed outside the green-house, and becomes sufficiently heated before reaching the plants. By this means the ventilation may remain open, even during cold nights, without the plants sustaining any injury. This excellent system is particularly advantageous for forcing fruits, and combines the necessary elements of fresh warm air, with thorough ventilation. The interior contains a splendid collection of new varieties of the dracaena, a plant which has long been cultivated for conservatories and for decorating rooms. None would suspect by its proportions when grown in Europe, that in the Canary Islands, New Zealand, Australia and all the islands of the Southern seas, the dracaena grows to a tall tree, with a slender trunk bearing upon its summit, a crown of leaves. The most charming specimens are crowned with leaves of a red, rose-colored, white or green tint: such are the *Dracaena Wilsii*, the *Ignea*, *Terminalis alba*, *Voluta*, *Ernesta Elizabethae*, &c., all distinguished for the beauty, elegance and variety of their form.

Amongst the *Euphorbiaceae* is a croton, from the berries of which the Chinese manufacture candles. There are nearly twenty new varieties of this species, two or three of which are new this year, the others having first appeared last year.

Amongst the most rare plants of the Fern tribe, is the *Lomaria gigantea*, the *Lomaria discolor bipinnatifida*, from New Holland; the *Adiantum tetraphyllum*, from Canada; four beautiful varieties of Anthurium of the Aroid family, natives of South America; the *Alocasia amabilis*, which will become one of the finest plants in our conser-

vatories, with its magnificent purple and bronze leaves; the *Tillandria*, also from South America; and a curious plant, not so new, but still pure, the *Nepenthes*, from Ceylon, whose leaves have at the extremity a tendril which suspends a sort of urn, something like the shoe of Venus in the Cypripeds, closed by a lid and filled with pure water distilled from the plant.

The pavilion of State manufacturers is situated at the entrance of the Champ de Mars on the left coming from the Jena bridge. It is built of wood, in the form of a nave with side aisles. The interior is roomy and well lighted. The entrance door is decorated with two earthenware slabs, having the tobacco plant in bloom painted upon them. The interior is composed of two spacious halls, separated by a passage which leads to the offices of the agents. On entering, one sees to the right, the newest and most interesting models of the machine used in the manufacture of tobacco. One of these illustrates the complete system of mechanical rasping, used in the manufacture of tobacco. One of these illustrates the complete system of mechanical rasping, used for making snuff in the manufactory at Chateauroux. The tobacco leaves are thrown into a kind of trough lined with teeth, which passes then through to a receiver placed below, in the shape of snuff picked and ready for use. This ingenious mill is worked by steam and produces 250 kilos. of snuff daily. It is made from a plan of M. Rolland's invention. A mechanical tobacco roaster is another useful invention by the same gentleman. This works at the rate of 500 kilos. an hour, and saves much time and expense, in this delicate part of the preparation.

Tobacco was formerly baked in ordinary ovens. A new mechanical drying apparatus is also shown amongst these models; and particularly worthy of notice is the machine for washing the tobacco leaves, used in the manufacture of ordinary cigars. It is composed of a series of wooden tubs, placed upon a circular flooring, in the centre of which is a vast iron vat, looking like one of the large receivers used in gas-works. This vat is raised or lowered by hydraulic pressure, in such a way as to decant from the wooden tubs, and amalgamate the juices of the several kinds of tobacco employed. If now we visit the chamber upon the left hand of the entrance, we shall see a smart cigarette-maker, preparing the Turkish cigarettes, for which she is paid 4 francs per 1000. She can make from 900 to 1000 a day. Another, with the help of a little mould, rolls the ordinary cigarettes, for which she only receives 2 francs, 30 cents the 1000. But there is a new machine, which only requires the care of the workwomen to regulate the sliding of

the tobacco into a groove, which introduces it into the machine. A *rouleau* of paper, unrolling itself as needed, forms part of the mechanism. The cigarette is rolled, cut, glued, and placed in a box, mechanically at the rate of 1000 cigarettes an hour. Thus, what would be a whole day's work, by the ordinary process, is accomplished in 60 minutes. Along the sides of the hall other workwomen make up packets of *caporal* at 40 cts. Five women are employed in this department. First comes the folder, who prepares the bags; then the weigher, who furnishes the amount required for each package; third, the *paquetseuse*, who puts the tobacco in the bags, and seals it, a fourth places the packets in a machine. The machine rejects those which are either over or under weight, and drops those which reach the proper standard into a large hamper, where they are arranged by yet another employee. It will be observed that among these six workers the task which needs unerring discrimination is allotted to a machine.

PERE.

Farm Work for November.

In entering upon the last autumn month, the farmer has much to engage his time and thought. It should be a busy one with him. The crops are to be gathered. The stock to be more carefully attended, and a variety of small matters to be looked into, if everything is to be, as it should be, ready for winter. The wheat has been sown of course, and the rye also. If the latter has not been done a large yield cannot reasonably be looked for, but it is not too late to sow in the hope of a tolerable yield. It is certainly not too late to sow rye for pasture. On poor sandy soil perhaps it will pay better as pasture than if cut for grain or to sow the same land unless highly manured or fertilized, would never pay in grass, the cost of seed and the labor of sowing it. It is certified by those who have tried it, that rye sowed in autumn, will make a good pasture for two or three years, *if it never be permitted to go to seed, and is* not at any time allowed to be eaten down too close. We believe it. Every one knows who has had experience with this grain, that it has great tenacity of life, and will appear year after year, if it has not been allowed to mature its grain—That once done it dies to the root like wheat, but it will continue to put forth new sprouts as often as cut off, provided it has not formed its grain—Hence rye can be pastured very late, and then make as good a crop as it would have made if not pastured at all, perhaps a better crop, if the season was favorable. It is this advantage over the small grains that rye has

and for that reason, it does seem strange, it has as a crop, so little consideration with farmers. Its early growth gives it such value to those who raise early lambs, or who want a nice fresh pasture for calves and colts. In connection with this matter we beg leave to call your attention to an article elsewhere in this number of our Journal, on the subject of "Rye for Pasture."

Turnips and other roots, and Potatoes, are to be gathered and carefully put away this month. Cider to be made. Ice house and ice-pond to be prepared in prime order, that the pond may be filled for the first freeze, and the house ready for the reception of that, no longer a mere luxury, but necessity. The corn cribs should be cleansed, and white-washed, to destroy weevil and other insects. See too that these cribs are made rat-proof and be well ventilated. New corn, however dry, will become musty—if not rotted,—if put in a wide bulk in a closely confined house—No crib should be wider than 10 feet, and slatted on all sides, so as to admit a free circulation of air. A crib should not be filled at one time, or during a single week, if it holds over fifty barrels.

The killing or pen hogs, ought to be penned at once and kept in clean, dry pens for sleeping and adjoining ones for exercise in turning over the litter and material therein placed to make manure and to absorb the liquids, &c. The farmer should be careful to keep these outside pens well supplied with rough material; if he wishes to have good pork and a valuable quantity of manure. The sleeping pen should be weather tight and floored, and have a plenty of dry bedding of leaves or straw. See that they have charcoal or rotten wood always at command, and a plenty of clean water. Feed them as much as they will eat, but do not let food lay by them—their appetites should not be cloyed; feed regularly three times a day all they will eat, clean and very thin food—Give a *little* salt daily and occasionally put sulphur in their meal and bran mush. Give them all the fruit, vegetables and milk that you can spare—Feed new corn, with some fresh grass if you have it. Force them all you can while the weather is mild, and they will grow and take on fat so rapidly they will well repay the care and labor, and cost of food you bestow on them.

ORCHARDS.

This is a good time to set out an orchard of apples and pears and quinces—Or if not an orchard, plant a few of each of these. Spring perhaps is better to set out stone-fruit trees—Do not neglect to plant an abundance of fruit trees, first, because they are healthy, economical luxuries for your fam-

ily and because they are becoming every year more profitable, owing to the great demand at home and across the Atlantic, for fruit, whether fresh, dried, canned or preserved—A great trade is rapidly increasing in American fruits, in all the various ways in which they are now prepared for the markets of the world.

CORN FODDER.

It cannot be too strongly impressed, we think upon our farmers, that they should save their corn fodder in better condition, than is usually done. If the tops and blades have not been saved and well cured, but the corn was cut off while the blades were green and put in shocks in the field, when the corn is shucked, the stalks should be tied in bundles and set up in close large shocks, so as to be not blown down or injured by the weather, or they should be taken to the barn yard and put in ricks and covered with straw, that during the winter they can be had conveniently for feeding—Good, and sweet corn fodder is as excellent for all stock as hay—If cut up after being crushed and lacerated, both being done at one operation by the "Sinclair Crusher and Cutter," and then steamed or well wetted with a sprinkling of meal of corn, oats or rye, no richer, strength-sustaining food can be given cattle or horses. Mules will live upon it alone, without long provender. See what a saving would be made by the use of these two implements, we are so solicitous for you to try. Corn-stalks are of no account, even for manure, unless thus worked up into palatable food, and yet they contain much sugar, so much that from late experiments at the U. S. Agricultural department, it is believed that good sugar can be made from the stalks, especially when in a green state. The corn stalk is found to be almost as rich in saccharine matter as the sugar cane—At any rate when used as we have suggested, they are eaten with great avidity by stock, and with the best results as to the production of milk and flesh.

CORN COBS.

We have often urged our friends not to throw away their corn cobs, or feed corn on the ear to their stock, as they were too valuable. A bushel of corn ground with the cobs, is worth at least two fifths of a bushel more for stock, than one bushel of shelled corn, ground or fed unground. Why throw away this *two fifths*? This is not only our belief, but is sanctioned by careful experiments of careful experimenters, who are practical investigators of the truth in such matters. Why should not every farmer possess a corn and cob mill, to enable himself to use them profitably? The cost is small of a good one horse mill, like the Young

America Corn and Cob Mill, which seems now the most popular mill of the kind, and the cheapest for the work it performs and its other qualities, at least it has received a greater number of premiums at the Fairs, than any of its many competitors throughout the country. The cost would be returned in one winter, and the mill will last a lifetime, with trifling repairs at long intervals.

Those who may have a prejudice against feeding corn and cob ground together, may grind the cobs by themselves, and they make when thus comminuted a rich fertilizer as fully tested by a practical and painstaking, close observing planter of Prince George's Co., Md. But no one should be without this sort of mill, to grind his corn, rye, oats or other grain, separately or mixed for food for his stock. Every man knows how valuable is cut hay, or even straw when mixed with meal, or ground grain of any sort, and how economical such food is. Much more would be used of this sort of feed, but for this inconvenience of sending a long distance to a mill to have the grain ground. This bother and loss of time of man, and team, and the *one eighth toll* would all be saved by a Young America Corn and Cob Mill, that would grind from 12 to 15 bushels of "chop" or *fine meal* for stock, in an hour—Every 400 bushels of any grain ground at home, would in these items, just mentioned, save more than the cost of the mill. But we feel sure that if the cob and corn were ground together that a greater saving would be made, and the stock would have better food, while nothing then would be lost, the cobs now generally thrown away as worthless, would be made to add two fifths to the quantity as well as value of the food of each animal. If this be so, there has been a great leakage on every farm which, has not used a Corn and Cob mill, and this is the conclusion to which those who have tried it, have come.

We refer our readers to our advertising column for further details about this mill.

SALT ON MANURE HEAPS.

We would call your attention to the excellent hint given by the *Chataqua Farmer*:

Dissolve common salt in water, sprinkle the same over your manure heap, and the volatile parts of the ammonia will become fixed salts, from their having united with the muriatic acid of the common salt, and the soda thus liberated from the salt will quickly absorb carbonic acid, forming carbonate of soda; thus you will retain with your manure the ammonia that would otherwise fly away, and you have a new and important agent introduced, viz: the carbonate of soda, which is a powerful solvent of all vegetable fibre.

History of Beet Sugar in the United States.

The following highly interesting paper was read before the Agricultural Congress of the United States, lately held at New Haven, Conn., by Mr. ERNEST TH. GENNET, and furnished to MARYLAND FARMER by the author:

The different stages of progressive civilization which we observe in nations which are foremost on earth, are often marked by the introduction of new plants, or are advanced by such introduction. The introduction of potatoes on the continent of Europe by Franz Drake, who brought them from the equator, where he found them growing wild, has not only had great influence on agriculture, but on the whole progress of civilization. They enabled a larger population to be fed from the products of the same area on which less people could subsist before, yet their utility was limited. Later we find the introduction of beets in their different varieties. They grow wild on the Mediterranean, and though a biennial plant, are propagated from year to year by their own seed. These beets were first used for cattle feed almost exclusively, and cultivated for that purpose.

At a time when sugar was used as medicine or as a high luxury, sugar was discovered in beets, proved to be identical with sugar extracted from sugar cane and commonly called cane sugar, and it was proved that this sugar could be extracted from the beets and obtained in the same crystallized form as from the cane.

The consumption of sugar has steadily increased ever since the first lot was brought to Europe from Candia, and though the discovery of sugar in the beet attracted great attention, yet for nearly a hundred years it did not reach the dignity of systematic manufacture, its production being especially fostered for political purposes, and when no more political cause were to be served, it was abandoned and almost forgotten. The cultivation of the sugar beet had undoubtedly greatly benefited the farms which had been engaged in the production of beet sugar, and it was therefore not entirely given up, but the continued decrease of production of the land on which root crops had never been grown forced the farmer, the scientific men, and even the Government, to investigate the causes of the decrease of general fertility, and to study the laws which govern the productiveness of the soil. Although, as an industry, the manufacture of beet sugar in Europe up to 1825 could not be called a success in a financial point of view, nobody could deny that

the farms and estates on which these enterprises had been carried on were otherwise than in a very high state of productiveness.

The time from 1825 to about 1835 may be looked upon as the period in which the production of beet sugar passed from the state of experiment into a systematic, organized industry, and where the product of this industry made some show upon the sugar market of the world.

From 1835 to 1845 we find the beet sugar industry taking its place amongst the national industries of Europe, not without a severe struggle, for it met with bitter opposition and had many enemies. To engage in the manufacture of beet sugar did not generally improve a man's credit. He had to combat with distrust and often ridicule. But the steady increase of population had directed the attention of scientific men to agriculture, and about this time it is that Baron von Liebig and his many co-workers gave a new direction to agriculture. Nobody can assert that the cultivation of sugar beets and the production of beet sugar has brought farming to the prosperous condition in which we find it at the present time in Europe, but the one is so closely interwoven with the other that it is impossible to state which is the cause and which effect, to state whether the cultivation of the sugar beets brought with it rational cultivation of the soil, or whether if, in consequence of rational cultivation, sugar beets and beet sugar were produced.

No plant is known in the whole civilized world about which so many books have been written in so many different languages and by scientific men of such high eminence as the sugar beet; no plant has ever exerted such influence on general farming beyond the direct product it yields as the sugar beet; no plant has ever met with such fostering care by every government in Europe than the sugar beet; but no plant has ever returned as many fold the care bestowed upon it by enriching everybody who comes in contact with it direct or indirect.

At this time it was when the French Government exerted all its influence and spent large sums of money in order to establish the manufacture of beet sugar in France on a solid basis, that the ambassador of the United States in France, Henry Clay, saw the great influence this industry would soon wield on general farming and national prosperity. But more than this, he saw in it the means of abolishing slavery in a peaceable way, by producing by free labor what so far was exclusively the product of slave labor. The great enthusiasm with which Henry Clay advocated the

aid of the Government to introduce this industry into the United States brought the sugar question into the political arena, and, as it was in opposition to slave labor, it met with no favor. The Government of the United States has never done anything to introduce this, to the farmer, so important industry in the country, and while it refuses every aid to the beet sugar industry, it fitted up men-of-war for the special purpose to cruise all over the world, collect sugar cane, preserve the same, and bring it here to be used for seed cane; it appointed a scientific commission to investigate the preservation of sugar cane against frost, and to devise some method by which it could be put in a fit state for shipment to Europe, to be manufactured into sugar there, and it appropriated large sums of money for these purposes.

The sugar beet, a modest little plant, had therefore to start its career in the United States with what little care a few individuals could bestow upon it.

The sugar beet, although a native of the shores of the Mediterranean, is in its present cultivated state a plant of the North, or Temperate Zone, and is cultivated for the purpose of sugar manufacture in almost every State in Europe from Italy to Siberia. It will therefore grow in nearly every State of the Union, though the strictly Southern States are probably less favorably situated for the cultivation of the sugar beet. To form a correct idea of the beet sugar industry as it has struggled along, the difficulties it has encountered as well as its advantages, this industry should be divided into two distinct parts, though both these parts may profitably and conveniently be combined, they are distinct from each other, and the advantages and disadvantages ought to be judged of each separately.

The beet sugar industry is considered a strictly agricultural business. Its success is therefore greatly influenced by the state of agriculture where it is started, while in return it will exert a great influence on the same also. Beet sugar means a rational relation of crops, proper and sufficient fertilizers, and high and timely cultivation. Without these it will never be a success; from these it is inseparable. Such farming is in the United States the exception and not the rule, but by making it the rule and spoliation the exception, it will bring the first blessing to the farmer. Though the beet juice is not as rich as the cane juice, the product of sugar per acre is fully as large from beets as from cane. Fifteen tons of beets per acre is a fair crop, and can be easily obtained from good, well cultivated land. But now every farmer has good, well cultivated

and ; and here it is where the first and greatest difficulty is encountered. Every beet sugar factory which has ever started in the United States had its trouble with farming, with procuring beets in sufficient quantity, not in producing sugar therefrom. The second difficulty encountered is the combination which has to be effected between manufacture and agriculture, which exposes the investment of large sums of money to great loss if this combination is not successfully made.

The first beet sugar factory established in the United States was in Northampton, Massachusetts, about 1836. No authentic report of this establishment can be found. They appeared to have encountered no difficulty in making sugar from the beets, but the raw sugar they made cost them six cents per pound, while raw sugar made from cane sold on the market for three cents. The beet sugar industry at that time was even in Europe so little developed that no statistics or scientific record could be expected.

The second beet sugar factory was established at Chatsworth, Ill., at the beginning of the civil war. The company undertook to raise all the beets they intended to work themselves. For this purpose they bought 2,500 acres of prairie land under cultivation. The beets produced on this land proved to be fully as good as the average of beets produced in Europe. The sugar produced in this establishment was of the grade known in the market as granulated sugar, and found a ready sale in Chicago and various cities on the Mississippi. But sugar beets require a higher culture than can be imparted to raw prairie soil within a few years, and the cultivation of this immense farm being undertaken at a time when everything was at the height of inflation, and meeting with a few unfavorable seasons, brought both agricultural and financial difficulties to the company. The removal to Freeport, Ill., of the machinery did not make any material change in the result, and the manufacture of beet sugar was discontinued after a few years. Two small factories established about the same time in Wisconsin existed but a short time. One was given up and the other removed to California. In California there has been two beet sugar establishments in existence for a number of years, but reliable data cannot be obtained from there. If we add to these a number of experiments of minor importance made in New Jersey, Delaware, Pennsylvania, Ohio, New York, North Carolina, Oregon, and probably other States, we have them all, and we have to admit, although over forty years have expired since the first beet sugar on

continent of America was made, we know no more about this industry than we did about half a century ago. While in nearly every civilized State in Europe, Great Britain excepted, the beet sugar industry, under the fostering care of the Government during infancy, has revolutionized farming, while it has made hundreds of thousands of farmers independent and opulent, while it gives daily employment to hundreds of thousands of manufacturers and mechanics, we have continued in our system of spoliation, which has become a perfect science, and is carried on as a fine art, while we rob our soil of its fertility, make millions of acres annually barren or nearly so, and sell the spoils to Europe, we keep under the hallucination we are an agricultural nation, while we keep a hundred thousand of willing industrial hands in forced idleness and deprived of their most pressing wants, we pay a tribute of one hundred millions dollars annually to foreign countries for the supply of sugar which has become a necessity as great as our daily bread, and with which we cannot dispense unless we want to go backward in civilization.

[TO BE CONTINUED IN "MD. FAR." FOR DEC.]

Making Cider Vinegar.

The demand for, and the usefulness of vinegar in the culinary and domestic arts, has led to its being made from a variety of chemicals and other articles, which are more or less deleterious to health.

Where vinegar is used for culinary purposes it should be of the best, and least detrimental to health possible ; such I believe is that made from pure cider, manufactured from good apples, they containing among their constituent elements the germs of vinous and acetic fermentation, essential to the making of good vinegar. The juice of apples, when first expressed, contains acetic acid and sugar, or saccharine matter. Immediately following the expression of the apple juice the vinous fermentation commences, which is rapid or slow according as the conditions of air, heat, &c., to which it is exposed, may be.

Cider will not go through its essential fermentations without the presence of oxygen ; and the more the cider is exposed to this essential element, under favorable conditions, the sooner vinegar is produced. But few common farmers pursue a course which will produce vinegar from cider in a few hours, but rather take a longer time and get what they consider a better article.

In making cider vinegar, the course I have pursued is, first, to mash, and express the juice of good cider apples, strain this free of pomace, &c., and put in clean sweet casks, set these away in the cellar or shed, as convenient, allow vinous fermentation to exhaust itself, keeping the cask full with the bung out. If the cider is made in the

fall, October or November, I prefer to let it stand in the cellar till the following spring, by which time acetous fermentation has fairly begun. Now take a clean cask, or one previously used for vinegar, place it in a warm location, shed or chamber over answers, draw out and fill the cask one half full—not particular as to just the quantity—agitate by drawing out a gallon or two and pouring back every other day, till it tastes quite “vinagary,” when you can draw from the cider, and fill in a gallon or two once a week, still keeping up the agitation by drawing from and returning to the vinegar cask. In this way I have made very good vinegar in about eighteen months from the apple; the time may be lessened by refraining to add in any cider after filling in the first time.

Many suppose it necessary to procure some “mother” of vinegar, or some substitute, but I have never found it essential, as it forms naturally when we use good cider. There is a considerable difference in apples—some contain very little saccharine matter, such make poor cider, and poorer vinegar, naturally.—W. H. H., in *Am. Floral Home*.

Consumption of Timber.

In pleading for the protection and perpetuation of forests, *The Lumberman's Gazette* gives some interesting particulars of the amount of timber consumed every year in this country. “We have now,” it says, “about 90,000 miles of railroad; the annual consumption for ties or sleepers alone is 40,000,000, or thirty years' growth of 75,000 acres. To fence these roads would require at least 130,000 miles of fence, which would cost \$45,000,000 to build, and take at least \$15,000,000 annually to keep in repair.

“We have 75,000 miles of wire, which requires in its putting up 800,000 trees, while the annual repairs must take 300,000. The little, insignificant lucifer match consumes annually in its manufacture 300,000 cubic feet of the finest pine. The bricks that are annually baked require 2,000,000 cords of woods, which would sweep the timber clean from 50,000 acres.

“Shoe-pegs are quite as important an article as matches or bricks, and to make the required annual supply consumes 100,000 cords of fine timber, while the manufacture of lasts and boot trees take 500,000 cords of maple, beech and birch, and about the same amount is required for plane stocks and the handles of tools.

“The packing boxes made in the United States in 1874 amounted to \$12,000,000, while the timber manufactured into agricultural implements, wagons, etc., is more than \$100,000,000. The farm and rural fences of the country consume an immense amount of lumber and timber annually, but as we grow older as a nation, this consumption may, and probably will, be reduced by the more general use of live fences or hedges. Our consumption of timber is not only daily on the increase, but our exportation of timber is also rapidly increasing. Our staves go by the million to France annually; walnut, oak, maple and pine to England, and spars and docking timber to China and Japan.”

Live Stock Register.

AYRSHIRE CATTLE.

The Ayrshires may well be called a milk-machine. For the economic and profitable conversion of food into milk this breed is without a parallel. In consequence of her symmetrical and well built frame, combined with a well formed and capacious stomach, there is very little waste through the respiratory system. Youatt estimates that the daily yield of an Ayrshire cow, on the average of the first two or three months after calving, is 20 quarts; next three months about 12 or 15 quarts, or on an average yearly yield of about 850 gallons. Of course, for a butter dairy the Alderneys are unequaled, but when milk alone is desired the Ayrshires is the breed to be chosen; these breeds are entirely distinct in their respective merits—neither competes with the other. The breed originated about 175 years ago in the county Ayr, in South West Scotland, but how it originated is a mooted question; it is only known that two centuries back there was no such breed in that neighborhood, the common stock being almost utterly worthless either for the dairy or the butcher. It is supposed, though if so it is truly remarkable, that the breed originated from a careful selection and breeding of the native cattle. The first importation was made to this country about 1830, and since that time they have greatly increased, both in numbers and popularity. Ayrshires are easily kept, doing well on ordinary feed are kind and gentle in their disposition, graceful in appearance, and of fine carriage. They are agreeably diversified in color, being either red and white or mahogany and white; fine handlers, slender and graceful head, neat and fine, tapering toward the muzzle; nostrils large and well dilated; eyes large, bright and lively; horn of medium thickness, arching slightly upward, thin at base and moderately tapering. Ayrshires are compactly built, well put up, neat in the bone, fine and straight in the back, broad across the loins, well-arched ribs, giving a capacious chest and room for ample digestive apparatus; large brisket; heavy hind quarters, wedge-like appearance; under capacious, reaching well forward and extending far behind; teats of medium size and squarely set on points projecting upwards; milk veins large and well developed; well defined escutcheon or milk mirror; whip like tail, bushy at the end. As the milk predominates in the casein, it is consequently for the manufacture of cheese.—*Live Stock Bulletin*.

Balky Horses.

The brain of a horse seems to entertain but one thought at a time; for this reason continued whipping is out of the question, and only confirms his stubborn resolve. But if you can by any means change the direction of his mind, give him a new subject to think of, nine times out of ten you will have no further trouble in starting him. As simple a trick as a little pepper, aloes, or the like, thrown back on his tongue, will often succeed, by turning his attention to the taste in his mouth. A simple remedy is to take a couple of turns of common wrapping-twine, such as grocers use, around the fore leg just below the knee, tight enough for the horse to feel, and tie in a bow not. At the first cluck he will generally go dancing off, and after going a short distance, you can get out, remove the string to prevent injury to the tendon in your further drive; or tie a string tightly around his ear, which will serve to divert his mind to forget his stubbornness.—*London Garden.*

Walking Horses

Walking is the most important gait for useful horses, yet little attention is paid to developing this most valuable quality. The fast walking gait is of immensely more importance than the fast trotting gait. An increase of one mile per hour in the walking gait of all the farm horses of the country would represent hundreds of millions in the economy of labor for a single year. Yet this might much more easily be accomplished, than what has already been done in increasing the trotting speed. The ordinary walking gait of a horse on the road is three miles, and to the plow, two and a quarter to two and a half miles. Suppose this could be increased one mile per hour in each case; it would represent thirty-three per cent extra travel, or ten miles per day on the road, and about the same on the farm. The money value of this for the 2,500,000 working teams would be enormous, but is perfectly capable of accomplishment. If the attention could be turned to this practical improvement as it has been to the pleasurable and fanciful one of trotting, it would in ten years add more than a hundred millions to the annual productive industry of the country.

In England, the draft horse is not permitted to be driven faster than a walk on the public road. Heavy draft and steady movement go together, and any attempt to mix up trotting action with work, must result in failure. But the useful horse should be trained with the same care and zeal for the special purpose to which he is to be devoted as is

the trotting or running horse; and could the same enthusiasm be infused into the breeders of these faithful servants, as the sporting fraternity give to the rearing and training of their pets, it would soon produce almost a revolution in the motive power of the farm and local commerce. The walking gait is the working gait, and the work of the world is more important than the pleasure; therefor let not breeders ignore the useful horses, that is connected with the highest progress of mankind.—*Live Stock Journal.*

DUROC HOG.

Red and sandy hogs, called Duroc, have been bred in parts of New York, for more than fifty years. They have been crossed and re-crossed upon other breeds during all these years, and their progeny have always retained characteristics of the original sire first brought into the county about the year 1823. Mr. Isaac Frink purchased him of Mr. Kelsy, of the town of Florida, Montgomery County, N. Y., who claimed to have imported a pair, the immediate ancestors of Mr. Frink's pig, from England. Mr. Kelsy was the owner of the celebrated horse Duroc, and Mr. Frink named the descendants of his pig Duroc, in honor of the horse by that name.

The Duroc pigs were popular and spread into Washington and adjacent counties, where they are still bred. They are undoubtedly descended from the same original stock as the Jersey Reds, now bred in the State of New Jersey, and hogs called Red Berkshires in some parts of New England. They were probably an offshoot or family of old-fashioned Berkshires. The opinion was expressed in the National Swine-breeders' Convention, and no one has yet controverted it. The old type of Berkshires often showed pigs of reddish cast, and at the present time this characteristic breaks out in the form of plum color, sometimes with a hue quite red. It is remarkable that one pig should have so strongly stamped his color and characteristics on his progeny that at this late day all of his scions exhibit more or less marks of the original type. Some of them have been crossed upon the modern Berkshires to such an extent that the old form is changed, the ears being erect and the body shortened, but the inevitable red, or sandy color, is carried along from generation to generation.

The true Duroc, as now bred by those who are aiming to keep the breed perfect and establish them as thoroughbred, should be long and quite-deep bodied, not round but broad on the back and holding the width well out to the hips

and hams. The head should be small compared with the body, with the cheek broad and full. The neck should be short and thick, and the face slightly curved, with the nose rather longer than in the English breeds, the ear rather large and lopped over the eye. They are not fine-lined nor yet coarse, but medium; the legs medium in length and size, but set well under the body and well apart, and not cut up high in the flank or above the knee. The hams should be broad and full well down to the hock. There should be a good coat of hair of medium fineness, inclining to bristles at the top of the shoulders, the tail being hairy and not small; the hair, usually straight, but in some cases a little wavy,

The color should be red, varying from dark glossy cherry red, and even brownish hairs, to light yellowish red, with occasionally a small fleck of black on the belly and legs. The darker shades of red are preferred by most breeders. And this is the type of color most desirable. In disposition they are remarkably mild and gentle, and are so docile that they are readily confined by low fences. They are kind and careful mothers and wonderfully prolific. They have a remarkable ability to digest food and to make growth. This is owing to their hardy constitutions and perfection in the proportions of their bodies, and the strong blood which has made its mark so notably for more than a half century. It is a common thing for Duroc pigs at six months of age to weigh 300 pounds, and at eight and ten months to turn the scales at 400 to 500 pounds. Hogs a year and a half old have weighed 700 to 800 pounds. Pigs four weeks old will weigh from 20 to 30 pounds, and measure over two feet in length and from 6 to 8 inches across the shoulders. For rapid growth and ability to lay on flesh the Durocs are not excelled. The meat is not coarse-grained, but fine and tender. Their powers of assimilating food are so great that they readily eat coarse food more dainty breeds would not touch, and will even fatten on grass alone, and in winter will eat with avidity clover, hay and roots that other hogs will refuse. They are not subject to mange or liable to get sunburnt.—*Rural New Yorker*.

A GOOD JERSEY HEIFER. G. R. Briggs, of Winthrop, Me., reports a Jersey heifer that dropped her first calf May 9, 1877, some twelve days less than two years old. She made 7 lbs. of butter per week, her feed being four quarts of shorts per day, with good hay. The 25th of April, 1878, she dropped twin calves. In May she made 10½ lbs. of butter per week, her feed being two quarts of shorts and one of middlings, with good hay. This certainly is a good heifer.

ANOTHER—Mr. S. Gage, of Silver Creek, Chautauqua Co., N. Y., has lately tested a young Jersey cow that made 18½ lbs. of butter in a week. This same cow made, last year, in eight months, 375 lbs of butter. Such cows as these would reconcile dairymen to the present low prices of dairy products.—*National Live-Stock Journal*

THE PIG IN AGRICULTURE.

The pig has recently been spoken of in contempt when compared with our other domestic animals. But if we examine his good qualities at all critically, we must award him a high place in our agriculture. The American people are thought to consume more pork, bacon and ham per capita, than any other people. The products of the pig are a household necessity, and enter into almost universal consumption. If we suppose 75 lbs. per capita to be used by our people of pig products, including lard, then our home consumption amounts to at least 3000,000,000 pounds, worth \$150,000,000. The pig then holds a conspicuous place in food supply of the nation. But when we examine it as a factor in our exports, we find it to stand at the head of all our domestic animals. A few years ago we did not put up our hams and bacon to suit English taste, and our average export of these articles amounted in money to only \$6,000,000 annually. But after studying the taste of our principal customer, and getting the assistance of some English houses in putting up the goods, our exports of hog products rose in 1872 to \$21,000,000. During the fiscal year 1876 these exports were as follows:

Live Hogs.....	\$ 679,042
Bacon and Hams.....	39,664,456
Pork.....	5,744,022
Lard Oil.....	149,156
Total.....	\$88,666,161

In 1877 these products reached the sum of \$82,352,222, an increase of over thirteen millions in a single year. But the items of the last fiscal year ending June 30, 1878, were the following:

Live Hogs.....	\$ 267,259
Bacon and Hams.....	51,730,205
Lard.....	30,014,023
Pork.....	4,913,646
Lard Oil.....	994,440
Total.....	\$87,939,573

Now, the entire cattle products exported the same year amounted to \$49,338,029; and this includes all our meat trade and dairy products, the latter being \$18,162,487; so that the exports of our dairy products, amount to but little more than one-fifth as much as those of our pig products, and the whole cattle exports only amount to 56-100 of the pig exports. These export figures of pig products show what we may do in a few years more. They have doubled in less than ten years, and we may reasonably expect them to reach \$125,000,000 during the next ten years. We have ample resources for growing and fattening pigs in unlimited numbers and can supply the demand however much it may increase. And since we can produce pork, bacon and hams cheaper than any other country, we are likely to have the command of the markets.

The pig is found to produce a pound of product from less food than either cattle or sheep, and therefore is the most economical machine to manufacture our great corn crop into marketable meat. Our people are becoming wiser every year, and exporting less, proportionally, of the raw material and more of condensed product. If it takes seven pounds of corn, on an average, to make a pound of pork, as is no doubt the case, the farmer begins to see the great economy of exporting one pound of pork, bacon or ham, instead of seven pounds of corn. The difference in cost of freight makes a fine profit, of itself; besides the pound of meat is usually worth more than seven pounds of corn in the foreign market.

The production of pork should be encouraged on the further consideration that it carries off less of the valuable constituents of the soil than beef. The fat pig contains only three-fourths as much mineral matter per cwt. as the fat steer, and only two-fifths as much nitrogen per cwt. And therefore the production of a ton of pork on the farm will carry off only a little more than half the fertility carried off by a ton of beef; besides a ton of beef will require nearly fifty per cent. more food to produce it. This gives in round numbers, the comparative effect of producing pork and beef.

It is thus evident that the pig should have a high place in agriculture; should be fostered in every way—his capabilities studied and pushed—his diseases carefully noted and prevented, for he is the most profitable meat-producing animal on the farm. The pig is an excellent adjunct to the dairy, turning all the refuse milk, and even whey into cash. As he is king of our meat exports, so let us treat him with great consideration.—*Rural New Yorker*.

The Omnibus Horses of Paris.

In the October number of *Wallace's Monthly*, we find an excellent article under the above title. We give the concluding paragraphs, which furnish much useful data and facts that may be read with profit by breeders and owners of horses. It will be seen that our views, often enforced, as to the economy of grinding the grain and cutting the long food, is fully supported by the practice of the great Paris Omnibus Company after many accurate experiments made to ascertain the cheapest as well as best food for work-animals. We may revert to this subject again, as it is of great importance to the farmer. Mr. Wallace says:

"We here give a summary of the facts and statistics contained in the reports of the Paris Omnibus Company, which will prove interesting to the general reader. January 1st, 1878, the company owned 10,947 horses, which were used on omnibus routes, tramways, and for general purposes. They represent the value of 11,699,302 francs or \$2,339,860 Federal money, and are worth, on the average, 1,068 francs each, or \$213.60. In 1876, the company owned 9,050 horses. Last year they

were compelled to erect new depots and stables, as the numerous lines were extended. One of these stables is situated in the *Place de la Bastille*, and can accommodate 868 horses. There are in the city of Paris thirty-two omnibus lines which carry on an enormous traffic. We give below a table of the ages of horses in service:—

Age.	Number.	Age.	Number.
4 years.	264	11 years.	1,213
5 "	1,985	12 "	241
6 "	1,703	13 "	232
7 "	1,490	14 "	109
8 "	1,097	15 "	71
9 "	1,312	16 "	88
10 "	1,121	17-18 "	21

Making a total of 10,947 horses in effective service. The average duration of service for a Parisian omnibus horse is seven years. In 1866, the average was five years, but, owing to better pavements and system of management, the duration of service has been increased. When no longer fit for work, the animal is sent to the *boucheries*, provided the organs are in such a state that the flesh is suitable for consumption.

"The average distance travelled per day by each horse is ten and one-quarter miles. Average height, 15:3½ hands; weight, 1,100 to 1,200 lbs. The net cost of shoeing per day for each horse is 16½ cents, Federal money. We give a tabulated statement of colors and sex of the horses:—

Colors.	Stallions.	Geldings.	Mares.	Total.
Bay	356	216	78	650
Black	307	119	68	494
Dun	3	2	4	9
Roan	104	107	29	240
Chestnut	119	67	21	207
Grey	5,099	2,573	1,675	9,347
	5,988	3,084	1,875	10,947

"We now come to that most important part of the company's management, the *regimen*. The daily ration of an omnibus horse is as follows: Grains—oats, corn, and beans; forage—hay, barley, and straw. The grains are ground and mixed with the cut forage, the daily ration weighing in the average 25 lbs., at an average cost of 2,10,71, or 51½, cents Federal money. The hay and straw, which are baled, come from the provinces and environs of Paris. The bulk of the oats supply is imported from Russia and Spain. The oat crop of France is good and the grain very nutritious, but the supply does not equal the demand. Corn is imported from America, Turkey, and Hungary, but there is tolerably good domestic supply. The beans come from the provinces, Egypt, Spain, Smyrna, and Morocco.

"The Paris Omnibus Company have recently prosecuted a series of experiments as to the nutritive qualities of the oats used in their stables.

"From the foregoing facts gleaned from the official reports of the company, from Mr. Lavaland, the Director General, and from our own personal investigations, we think our readers are in possession of sufficient information to prevent them from going astray. The leading deduction may be briefly summarized:—

"*First*.—The omnibus horses of Paris are the best in the world *for that purpose*. They are plain and unattractive in appearance, but strong and well suited, both physically and mentally, to the kind of life to which they are consigned.

"*Second*.—For all ends of drudgery they are remarkably serviceable; but owing to their lack of form and style, they are not profitable to raise for sale, either in France or this country. It will be observed the price is very low.

"*Third*.—It would be supreme folly to seek improvement by engrafting this blood upon our own, unless we wish to enhance the capacities for drudgery at the expense of symmetry and beauty.

"*Fourth*.—There is an unmistakable family resemblance between the omnibus horses of eleven hundred and fifty pounds, and the Percheron stallions of sixteen or eighteen hundred pounds, that have been imported into this country. But the stereotyped statement that these stallions are fair representatives of the omnibus horses is not true.

"*Fifth*.—The Percheron horse is a valuable acquisition when bred as nature designed him. He has been brought to his present size and formed for the cart, and for that only is he suited. He is needed in our great cities, and when bred on his kind, the progeny will always meet a ready market at good paying prices.

"From the first importations of Percheron stallions, we have felt like encouraging them on their merits, and we still feel that way; but there have been so many palpable misrepresentations as to their travelling capacities, and all in order to secure patronage from farmers, who have not the opportunities of informing themselves as to the facts, that we no longer hesitate to pronounce the whole means thus employed as the merest "jockeyism." If bred with a view to preserve the original size and type, it is well; but, if bred indiscriminately upon our small farm-mares, the result will be only mischievous."

The Department of Agriculture estimates the wheat crop of 1878 at \$400,000,000 bushels; that the corn crop will fully equal that of 1877, and that the cotton crop may equal, if not exceed, the great ante-bellum crops. The oats crop will probably amount to over 400,000,000 bushels, and Irish potatoes, 103,000,000 bushels,

Winter Rye for Pasture.

The editor of the Scientific Farmer, speaking of what he heard and saw at a farmer's club meeting Worcester, Mass., held at Mr. J. W. Pierce's farm, says among many items of interest he brought away from the pleasant meeting, was that of "winter rye for pasture."

"This we had heard of before; but Mr. Z. Baker informed us of rye being pastured for four years continuously, and then giving a crop of grain; and Mr. W. Hall confirmed the account by another, of rye being pastured for seven years continuously by sheep; the testimony being that winter rye will continue growing year after year, *if not allowed to go to head*. What a valuable idea this, to be used in experimenting on the improvement of pasture! It will make rye one of the most valuable of crops for soiling."

[Why could not some of our readers try it—It is not too late to sow rye for that purpose. EDS.M.F.]

Improvement in Dairy Stock.

Whatever the breed of cattle selected for the dairy, it is of the first importance that care in the selection of the males be taken into account. They should be known to come of good milking stock, and of those individuals that have uniformly produced milkers. It will also be necessary for the dairymen to select such animals as have been known to produce good results in the particular branch he intends to prosecute, whether cheese or butter. Herein is a study, and one that may not be decided hastily, for as surely as "like producers like," so surely will the influence of the male stock tell on the herd.

The same is true of the females. It is not enough to know that the dam is a superior milker. We must know that she comes of a family that have generally produced milkers. The Short-horns, admirable as they are for gaining great weights of beef at an early age, have produced families of great milkers. Unfortunately, within the last twenty-five years, the milking qualities, of these particular strains of blood have been ignored, so that now dairymen are looking, and very properly, to the Jerseys, Ayrshires and Holstiens for their value for milk. We do not think the Short-horns will ever regain their popularity in this direction, and for the reason that it may only be done by a long course of selection and breeding. It will be cheaper to begin with the breeds now admirably developed in this direction, and let the Short-horn and the Hereford breeders fight out the question of merit for beef, of these respective breeds. Nevertheless, if a superior milker be found in either of these breeds, or in cows of no particular breed, buy them by all means, and use them until the herd you may be perfecting reaches satisfactory results. If dairying is to be a growing and permanent industry, we must have cows that shall be uniformly good at the pail. The only way to do so is to breed them.—*Prairie Farmer*.

HORTICULTURAL.

For the Maryland Farmer.

Immense Raspberries—Methods for Growing and Planting.

This delicious fruit has of late years occupied a very prominent place in the gardens of the country, and the large size of some of the varieties that are now cultivated make quite a contrast to the kinds that were grown fifteen or twenty years ago. Especially is this the case with some of the newer varieties that have made their appearance within the last year or two. Beautiful berries, indeed, they are, measuring in some instances over three inches in circumference. Nor is their large size and fine color their only merit, as it is the almost unanimous opinion of connoisseurs and amateurs that the quality of the berries is equal to any that have been previously grown. This matter of quality, though not of very great importance to those who grow fruit for market, yet adds largely to the enjoyment of those who grow the berries for their own table use. Of the twenty or thirty varieties upon my grounds the following that I will describe are perhaps attracting as much attention as any.

HENRIETTA—A berry of the size of this can hardly help but prove a favorite. I like it better the more I see of it. Specimens measuring 3 1-4 and 3 3-8 inches in circumference are large enough to satisfy almost any one. One berry (not grown by myself) is said on good authority to have attained a cross diameter of 1 1-2 inches, or 4 1-2 inches around. These berries are something the shape of a thimble, and if one large enough can be found, or a drawing be made of this measurement, then the reader will be able to realize more accurately their immense size. The berries are of a fine red color, and of very good quality. The plants are famous for making a vigorous growth, some canes being eight or ten feet high, with extra large leaves, so that the owner can rest in comfort "under the shade of his own raspberry tree." On sandy soil they also seem to thrive, which is not the case with some raspberries.

PRIDE OF THE HUDSON—This new raspberry is proving a formidable rival to the one just mentioned, and it is difficult to say which will succeed in winning the most friends. As its name indicates, it is a special favorite here upon the Hudson, and we are perhaps a little partial to it, as it originated near here, at Newburgh. I may be permitted, however, to say that it is among the best in quality of fruit. The berries measure

frequently from 2 1-2 to 3 inches around. It is called a hardy variety, as no winter protection has been given the plants. However, some of the canes were somewhat injured last winter, owing perhaps to the very variable temperature, but this may not occur again for many years to come. Its productiveness is worthy of note, as 600 berries have been counted upon a single cane three feet high.

CAROLINE is a beautiful yellow variety of decided promise. In some respects it is unquestionably superior to the well known "Brinkle's Orange, which it resembles in color, as the canes do not require any winter protection, and the berries, besides being of good quality, are sufficiently firm to send to market. "Cuthbert," "Reliance," "Turner," "New Rochelle" and "Gregg" are all worthy of mention, but cannot be described at present.

And now a few words as to planting and cultivation. Any good soil is suitable for the raspberry, and especially if moist and well drained. It can hardly be made too rich the first year, and the manure may be scattered both broadcast and along in the furrows where the plants will be set. After the first year the land need only be moderately enriched. Repeated experiments have shown me that the fall—in October and early in November—are the best times of all the year to set out the plants. Last fall, though planting them much later than usual, yet there was hardly one plant in a hundred that failed to grow, and they have all, with scarcely an exception, made a much more vigorous growth than have any that were set out in the spring. The same was the case with blackberries, currants and gooseberries. I find that space does not permit me to describe methods employed in planting and cultivation, but a few simple directions that I have had printed will be mailed gratuitously to any one who may be in search of further information.

R. H. HAINES.

Saugerties-on-Hudson, N. Y.

Garden Work for November.

While there is not a great deal of importance to be done in the garden this month, yet many matters will call for the attention of the gardener. The work of cleaning up, putting in order for winter, and composting the litter and weeds, &c., with muck, sods, leaves and woods earth, cow or horse manure, all in layers, and the whole saturated with water, though brine, soap suds or liquid manure would be better. Each layer made white with lime would help decomposition.

If cold weather sets in, the vegetables should be immediately cared for, by putting away such as have matured, and protecting such as are to stand out all winter.

Before hard frosts, or toward the close of the month, all *root crops* should be housed in small bins, or buried in heaps, and covered with leaves or straw, and on that two or three inches of earth rounded up and patted close. The dryer the ground the better for safe keeping. The vegetables thus put in stoops should be free from wet or dew, and from damp earth.

Cabbages, after a hard frost, ought to be taken up, and carefully stored as the root crops, or planted close together and covered by a plank, or fodder shelter, to keep off all rain and snow. Thus packed away they are easily got at in winter, and those which have not headed, will form by spring nice compact heads. They should have air, but all rain or snow excluded. This is done by leaving one end of the cabbage shelter open, to be closed when the weather is stormy or very damp.

Spinach and other Small Salads should be hoed, thinned and watered, if the season is dry. Garden herbs, small fruits and grapes may still be set out and mulched with coarse manure, such as bedding fresh from the stables. The same as to most all sorts of flowering shrubs.

Bulbous Roots may now be planted out in the beds for spring blooming. The tender bulbous plants, like dahlias, tuberose, &c., must be taken up, cleaned from dirt, dried in the shade a few days, and put away in some dry, cool place where they will not freeze.

Asparagus Beds.—If not done before, now clean off and cover with a good coat of manure.

Strawberries.—It is not too late to set out strawberry plants on rich, well prepared beds. Put them 12 by 13 inches apart, and water freely if the ground is dry, and after they begin to grow, or as soon as cold weather begins, mulch them well with half rotted manure and straw or leaves, with a few cornstalks between the rows to keep the leaves or straw from blowing away. With proper care and good cultivation next spring you may expect a fair crop from plants set out this month. To have a large yield and large berries of this delicious fruit from a small patch, you must give them plenty of manure, good cultivation, and never let them suffer for want of moisture. Some one says, that on enquiring of an English gardener how he grew such large fruit in such quantity, he replied: "I use the pump handle freely."

THE HORTICULTURAL SOCIETY OF WASHINGTON, D. C., met on the night of the 9th of October. A magnificent collection of dahlias, embracing about fifty varieties, from Mr. John Saul's gardens, were much admired. Mr. J. P. Hammond presented some cactus blossoms and samples of a white morning glory called *bona nox*. Mr. Davis, the Treasury department gardener, sent some handsome roses. There was also on exhibition a jar of canned Duchess pears, by Mrs. Nute, seven of which, pared and cored, filled a two-quart jar. Mr. B. D. Hyam, who had been invited to prepare an essay, read a very interesting paper on "the attributes of God as displayed in flowers." In the course of his remarks he said:

"The botanist mounts to the apex of the Andes and of the Himalayas, or goes through the miasmatic regions of the sun-scorched tropics in search of some hitherto unknown weed, with a light heart and determined purpose to show the attributes of God as displayed in flowers. The botanist, knowing the wants of the plant and what conditions are required to keep it from a premature death, carefully nourishes it for a season, propagates therefrom, and suddenly the lovers of flowers are surprised with the announcement that a new gem is added to Flora's kingdom. Few know what it costs to obtain one of these rare plants. It is not to those valuable plants that the love of flowers is generally given. It is to those annuals and perennials which are to be found in the palace garden, or about the poor man's home. The love of those brilliant hued ephemera and their culture is not the offering of to-day, spread as the culture is at the present era both in and out of doors, it does not surpass the love of the ancients displayed to the same end. There are few pleasures which tend to improve the mind or gratify our senses and heart as much or more than flowers do.

Speaking of the love of flowers by the people of Egypt and the Holy Land, he said:

"In this ancient love for flowers we see the attributes of God. Following on through the various eras of the world, and tracing the history of the Egyptians who colonized Greece, we find the same love for flowers. In the old May-day festivals of England, when the villagers danced around the May-pole garlands of flowers fresh culled from the fields were used to decorate those who participated in the gleesome joy of the festivities and so on to the present time the same veneration and love for flowers inspires our nature. This love comes of God who fills the hearts of all his creatures with his love and the flowers display his attributes."

The essay was listened to with much attention and the lecturer was afterwards complimented by the members of the society. Interesting addresses were also made on the same topic by Col. Curtiss, and by Messrs. J. T. C. Clark, John Saul, Wm. Saunders, Prof. Taylor, of the Agricultural department, C. A. Ball, Dr. Jouy, Mrs. Nute, and others. The attendance was large, and much interest seems to be growing in the cause the society is advancing.—*Washington Star*.

Feeding Straw to Stock.

I have wondered a great many times why farmers do not pay more attention to feeding straw than they do. Now, though sixty-one years old, I have only been on the farm about eleven years, yet I find in my own experience that my horses do better on straw, with a little corn, than they do on the best of hay without corn. Two years ago I came short of hay, and had no straw, though I had five head of horses. I bought a stack of wheat-straw (as straw is very cheap in this country), and I commenced feeding in November. I gave my horses a little at a time, just what they would eat up clean, and no more. In the morning I would give them four or five ears of corn; two and three year old colts I gave two ears a piece. At noon I fed them straw alone, and at night the same as in the morning. I continued in that manner all through the winter, and my horses came out better in the spring than when I fed on hay. They did so much better that I concluded to try again this last winter. It so happened that my hay crop was a failure, and I bought four or five tons of wheat-straw of my neighbor, paying seven dollars for the lot. It was not the best of straw either, but I put it in my barn, and fed as usual just what the horses would eat up clean. The result was my horses came out in the spring in good working order, and a great deal more lively on the road than when I fed hay. So I wintered my five head of horses on seven dollars' worth of straw, with what little corn I fed morning and night.—*Letter to American Cultivator.*

Depth to Sow Wheat.

Mr. Peffer says in the Trans. Wis. S. A. S.: "The sooner the Kernel sprouts and gets above the ground, the better and stronger the plant and the thicker it will stand. To illustrate: In my younger days, I made experiments with the depth of planting wheat; I planted the kernels of a whole head in this manner: in one of our garden beds (ground spaded twelve inches deep) 1st kernel on the surface; 2d, one-fourth inch deep; 3d, one-half inch deep, and so on (a quarter of an inch deeper each time) until the kernels were planted. The results: the one on the surface lay nearly two weeks before it sprouted and made roots; the 2d, one-fourth inch deep, and up to three-fourths, came up the fourth and fifth days, while the next were later; the last one up was fourteen days in reaching the surface, and was three and one-half inches deep; none came up after that time. On examining, I found that the three next kernels

were sprouted, but rotted before they got the sprout to the surface, the kernels planted from five to seven inches deep rotted without a sign of sprouting. We had the kernels planted six inches apart in two rows. At the end of six weeks, the plants stood thus: the first had three straws quite strong; the one-fourth, 21 straws; the half inch 17 straws, and so on; three and one-half inch, a very weak single straw; It never got strong, although it grew a small or short head, and the few kernels it contained were plump and good; the one-inch had eleven straws at six weeks, but only perfected seven good heads, while the one-fourth inch perfected twenty-one good heads. The one on the surface made three good heads, the same as the one planted two inches deep."

The Compton Corn.

Winthrop, Maine October 17th, 1878

CAPT. WHITMAN, EDITOR MD. FAR,

DEAR SIR:—I will now give a statement of my crop of corn: first it was planted on a clayey loam soil, planted to corn the year before with a very light dressing; also this year a light dressing of barn yard manure without any other fertilizer. There were 70 rods of ground and I got 78 basketfulls of ears of corn, equal to *eighty nine and five-sevenths bushels per acre* of shelled corn. If I had planted the kind of corn that I have been in the habit of planting, and had got forty bushels to the acre, I should have called it more than a common yield. What surprises me in this "Compton" corn, it is so mixed, that I have seen two ears on one stalk, one ear eight rowed and the other twelve rows.

Mr. Editor, if you can tell me by what process in nature that eight and twelve rows are produced from one kernel of seed, you will oblige your old friend

JAMES C. HOWARD.

[We would respectfully refer this question to Dr. Sturtevant, the learned experimenter and investigator in corn growth, or any of our readers who may be able to solve the mystery. EDS. MD, FAR.]

"A wonderful thing is a seed:

The one thing doubtless forever—
The one thing changeless, utterly true,
Forever old and forever true,
And fickle and faithless never.

Plant blessings and blessings will bloom,
Plant hate and hate will grow;

You can sow to-day—to-morrow shall bring
The blossom that proves what sort of thing
Is the seed—the seed that you sow."

History of the Maryland Agricultural and Mechanical Association.

CHAPTER V.

On the third and last day of the Fair of 1850, the annual address was delivered by the Hon Wil'oughby Newton of Va. The day was showery, but there was a large and appreciative audience to hear the eloquent Virginia orator. His discourse was practical and abounding in patriotic sentiment. Mr. Newton was not only an excellent farmer, but a graceful speaker, and of course did not fail to gratify the highest expectations of his hearers.

Mr. Brown, who had made the subject of wool his especial study, was introduced by the President, and read an interesting essay on wool.

"During the second evening session, "Mr. Dobbin asked leave to call the attention of the society to the vine culture—Mr. D. gave a very interesting account of the successful culture of the grape in Cincinnati, the particulars of which he had obtained in a recent visit to that city—and presented specimens of several varieties of the "juice of the grape," which were discussed by the connoisseurs present.

On motion of Dr. Wharton, the thanks of the society were tendered to Mr. Dobbin, for the interesting details which he had furnished upon the subject of the culture of the grape, and also the specimens of the wine therefrom presented this evening.

Mr. Carroll moved that a premium of \$20 be offered for the best 10 gallons of domestic wine, exhibited at the next Exhibition—which was referred to the quarterly meeting for the regulation of the premium list.

Mr. J. T. Earle of Q. A. offered the following resolution, which was adopted.

Resolved, That a committee of five be appointed to enquire into the expediency of establishing an agricultural College, and to report to this society at its next annual meeting, whether or not some existing Institution may not be judiciously obtained for the purpose.

The President appointed as the committee, Messrs. Earle, Dobbin, Kimmel, Carroll and Coad."—AM. FAR. Vol. 6, page 195.

It thus will be seen that the idea of an Agricultural College was first started in a meeting of this old Agricultural Society.

After hearing, discussing and disposing of the several reports of the Premium awarding committees.

Mr. A. B. Davis offered the following resolutions, which were read and adopted.

Resolved, That the use of the rooms of the Society be, and they are hereby tendered to the committee appointed by the Governor of the State on the subject of the great industrial Exhibition to be held in London, in May of next year.

Resolved, further, that 7 Delegates be appointed by the chair to represent this society at said exhibition, and also at the Royal Agricultural Society of England, and in the event of any of the delegates declining to go to London, that the President of this meeting have power to fill vacancies.

On motion of Col. Hughes, the thanks of the Society were tendered to Dr. Higgins, State Chemist, for the able report made by him to the State Legislature, and for his zeal in behalf of the Agriculture of the State.

On the evening of 25th Oct., 1850, after the transaction of some routine business, there being a very large attendance of members:—

The President then announced that the next business in order, was the election of officers for the ensuing year—and embraced the occasion to return his thanks to the Society for the distinguished honor which had been twice conferred on him, in electing him to preside over it—an honor, he remarked, more highly prized than that which any political distinction could confer—taking into the comparison the manner in which the office had been bestowed upon him, and the modes by which political offices were most generally obtained. He thanked the members of the Society for the warm feeling and support which on many occasions he had experienced at their hands, and hoped, if in the midst of the duties of his office, he had, in any moment of excitement, done ought to wound the feelings of any one, that he would be pardoned the offence. Mr. C. then alluded to the want of liberality which had been extended to the Society by the city of Baltimore—that instead of having thousands enrolled on our list of members, the whole number amounted to but a few hundred—Whilst in other States, where similar exhibitions are held, towns, villages and cities vied with each other for the privilege of having the annual festivals held within their limits, and thousands of dollars were cheerfully raised and expended for the necessary buildings and enclosures, thus enabling the societies to reserve their funds for the more extended distribution of premiums for the encouragement of the various branches of agricultural industry—here, notwithstanding the liberality displayed by one of the sons of the city, Mr Ch. R. Carroll, in giving the free use of his grounds for the purpose of the Society, the proceeds of the Exhibitions, and the fees of the membership, had been found inadequate to meet the demands upon our treasury, and the officers of the Society had been continually dunned throughout the year, for petty debts, honestly due, and which should have been promptly paid, but for which there was no resource, unless assumed by individuals. This state of things should not be, in a large and wealthy city like this—and it was a matter of astonishment that the business men of the city, who were experiencing the

immense benefits which our Exhibitions were conferring upon them, should evince so little spirit in their contributions to sustain us in our labors. The Society will find it due to itself to take some efficient action upon this subject. Although all his feelings were favorable to the continuance of our exhibitions in this great commercial metropolis of our State, yet it would be a subject matter for our serious consideration, whether the proposed extension of our operations, which has heretofore been mooted, would not be advisable, and an offer from an other quarter, which he was authorized to make, of furnishing all the necessary fixtures for our purposes, provided our Fairs were held in their midst, should not be acceded to, if the citizens of our metropolis continued to decline extending to us their liberality which we deem our due.

Mr. Calvert alluded to the different course which had been pursued towards other great public objects, by the city and State—and particularly pointing to the fact, that whilst comparatively nothing had been done for us, the corporate authorities of Baltimore had not only given the privilege of a most valuable lot for the building of a Hall for the holding of the Exhibitions of the Maryland Institute, but had also made the very handsome appropriation of \$15,000 towards the erection of the building—and the State legislature, whilst it had made an annual appropriation of \$500 to the same Institution, had treated our application for a similar appropriation with neglect. He highly applauded these liberal aids to the most excellent and praiseworthy Institute which was the recipient thereof, as worthily bestowed, but could conceive no reason why the claims for some small share of the consideration of the City and State should be withheld from the representatives of so large and respectable a class as is represented by us. Mr. Calvert entered into some calculations showing the immense amount of money which was made to flow into this city from the annual gatherings consequent upon our Exhibitions—the permanent business associations which were here formed, and which, when once made, were likely to continue for years—thus drawing, as it were, to this focus of manufactures and commerce, a greatly extended trade, which would increase its wealth and prosperity, and benefit, directly or indirectly, every class of its inhabitants. He remarked, that on effort more, he understood, would be made, to determine if the citizens of Baltimore were disposed to meet us in that spirit of liberality which we deem requisite to enable us to carry out the great objects of our association, in extending the usefulness of our Society, the exaltation of the character of our profession, and in inducing a more active exertion for the improvement of the agriculture of our State.

After urging upon the members, the importance of keeping out of our discussions any subject of a political nature, in conclusion the President reiterated his thanks for the honor which had been conferred upon him in electing him to the post which he had held since the formation of the Society; and as the time had now arrived for the election of officers to conduct its affairs for the ensuing year, he respectfully declined being a candidate for re-election.

After he had taken his seat, a number of the members arose, and proposed that Mr. Calvert be unanimously re-elected to serve for another term.

Dr. Wharton, who was standing in front of the President's seat, was called upon to put the question to the Society on the motion of the re-election of Mr. Calvert, and it was adopted with acclamation, and received with loud and repeated cheerings.

The President again arose, and begged that the Society would not insist on his continuing longer in office. There were other gentlemen who could give more time and attention to the duties thereof, than it was possible for him to bestow upon it—and urged that he should be relieved from further service.

Mr. J. Carroll, Jr. moved, that as there was no question before the Society, the President having been unanimously re-elected, we now proceed to the election of the other officers.

The synopsis of Mr. Calvert's remark and what followed, is taken from *Am. F.A.R.* vol. 6, pages 198 and 199. The old officers were all re-elected.

Mr Howard offered a resolution, that the thanks, of the Society be tendered to Mrs. R. Ross, of this city, and the ladies who assisted her, for their kindness in accepting the invitation of the officers of the Society, to superintend the arrangement of the various articles deposited for exhibition in the Ladies Department of the Exhibition—and as a token of the estimation of the Society of the taste and skill displayed by her, that a piece of silver plate be presented to Mrs. Ross. The resolution was unanimously adopted.

On motion of Mr. Dobbin, it was

Resolved, That the thanks of this Society be and they are hereby tendered to the Hon. *Willoughby Newton*, for the very eloquent address delivered before the Society this day, and that he be requested to furnish a copy thereof for publication.

On motion of Mr. Sands, the renewed thanks of this Society were tendered to Chas. S. Carroll, Esq. for the continued use of the show grounds for our Exhibitions.

The Society then adjourned.

[TO BE CONTINUED.]

OUR OLIO FOR THE MONTH.

HEAVY WHEAT.—Mr. George Booth, of Cecil county—says the *Democrat*—reports that his wheat weighs sixty-five pounds to the bushel.

During the last twenty years England has paid to foreign countries for food—according to the report of Mr. Stephen Bourne, of her Majesty's Customs, \$10,000,000,000. The report states that each member of the community now consumes to the value of two and a half times as much foreign food as he did twenty years ago. With this immense drain on her resources, England would in a few years be reduced to penury, were it not for the immense sums of money paid her as interest.

EXPORTS OF CATTLE PRODUCE.—The National Live Stock Journal gives a list of the exports of cattle products for 1877 and 1878, and to it adds the annual aggregate showing the progress for ten years, from 1869 to 1878 inclusive.

CATTLE PRODUCT.	1877.	1878.
Live cattle.....	\$1,593,089	\$3,896,888
Fresh beef.....	4,552,323	6,099,836
Salted beef.....	2,950,952	2,978,234
Butter.....	4,424,616	3,930,840
Cheese.....	12,700,627	14,103,529
Condensed Milk.....	123,801	128,118
Preserved meats.....	3,939,977	5,099,918
Hides.....	2,480,427	1,286,840
Leather.....	6,017,373	6,199,052
Tallow.....	7,883,619	6,695,377
Neat's-foot oil.....	19,720	17,447
Total.....	\$46,686,715	\$49,338,029

The export of fresh beef does not go back beyond 1877; but, under all the other items, the aggregate is as follows:

1876.....	\$36,852,556
1875.....	35,028,367
1874.....	32,662,325
1873.....	30,302,827
1872.....	23,735,327
1871.....	18,141,311
1870.....	16,594,169
1869.....	12,303,371

The *North British Agriculturist* says that during the month of September something like 10,000 rams were sold by auction in Scotland. More than half this number were disposed of in Edin- and Kelso in one week. It will give our readers something of an idea of the magnitude of sheep husbandry in Scotland.

At the sales of Shropshire sheep in England, during September, the figures realized, show a remarkable rise in prices for these sheep. One flock of 100 head averaged nearly £9; another of 60 head averaged over £5; a flock of 400 averaged nearly £8; a flock of 80 averaged nearly £9; another flock of 70 averaged over £6. These were prices for ewes. The highest prices paid for individual ewes was 24, 18, 37, 21, and 8 guineas. Rams sold from 20 guineas to 120 guineas each.

JOURNALISTIC.

SOUTHERN ENTERPRISE for the development of the material resources of our country, especially looking to immigration to Georgia; published at Atlanta, Ga., \$2.00 per year. This is a well conducted, large monthly, and well filled with useful matter for farmers and the general reader, and statistical information in regard to the resources of the State and inducements to settle within her borders. We received a call from Mr. S. T. Jenkins, one of its editors, and were much gratified by making his personal acquaintance. We found him a genial and intelligent gentleman, and enthusiastic about his enterprise and the soon-coming great future of the whole south, in which we can not but sympathize and hope may soon be realized. We wish heartily every success to "THE SOUTHERN ENTERPRISE," which it so well deserves.

THE ILLUSTRATED FAMILY HERALD.—A richly embellished monthly; True & Co., publishers and managing editors, Augusta Maine. This is one of several works published by this immense establishment. The Herald is a large paper, filled with useful and pleasant reading. The stories are illustrated and each complete in every number; one page of music and the words of some new song. There are pages devoted to Live Stock with life-like, finely executed portraits of animals. Two rare and superb cromos of large size are given to each subscriber, and all furnished for the small sum of \$1 per year. It is one of the wonderful triumphs of printing that so much can be offered for such a trifle.

THE INTERNATIONAL REVIEW.—Horace White, Geo. W. Julian, Albert Rhodes, A. R. Spofford, (Librarian of Congress), Rev. Dr. John Hall, Professor Johannes Von Huber, of the University of Munich, Germany, J. W. Green, of St. Catherine's College, Cambridge, and P. G. Tait, Professor of Physics, College, Edinburgh, will contribute to the November-December number of the *International Review*.

From the monthly statement of the Chief of the Bureau of Statistics in Washington, the excess of exports over imports for the eight months ending August 31 this year appears to have been \$188,501,087. For the same period in 1877 they were \$38,951,995. The excess of exports over imports of gold and silver coin and bullion during the first eight months of this year was \$621,283. During the same time in 1877 they amounted to \$25,463,551. Gold and bonds are flowing home,

THE MARYLAND FARMER,

A STANDARD MAGAZINE.

DEVOTED TO

Agriculture, Horticulture & Rural Economy.
EZRA WHITMAN,
Editor.

COL. W. W. W. BOWIE, Associate Editor.

141 West Pratt Street
BALTIMORE.

BALTIMORE, NOVEMBER 1, 1878.

TERMS OF SUBSCRIPTION

One dollar and fifty cents per annum, in advance
Five copies and more, one dollar each.

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1 " 12 "	70 00
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Cards of 10 lines, yearly, \$12. Half yearly, \$7.

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EXCHANGE LIST.

Advertisements under this head of not over 40 words, describing and offering stock or poultry "for exchange only," will be allowed at 25 cents for each and every insertion. For every line extra, 10 cents will be charged.

Editor of pigeon department Maryland Farmer, will exchange Antwerps, Fantails, Turbits, Owls, Jacobins and other varieties of fancy pigeons, for fancy poultry of all kinds. Prices low.

Our friends can do us a good turn by mentioning the MARYLAND FARMER to their neighbors and suggesting to them to subscribe for it.

To POSTMASTERS—You will see that the subscription price of the MARYLAND FARMER is \$1.50 per year; but you will be allowed a commission of 50 cents on each subscriber that you will send us; that is, send us \$1.00 and keep 50 cents on each.

Now is the time to ADVERTISE, when the fall trade is brisk and farmers are looking for stock of all kinds, and fertilizers, and winter supply of goods. We shall send out a great many specimen numbers of our Journal to different sections of the country, that everybody may see it, and we hope, may appreciate its merits.

FIFTEENTH VOLUME OF THE MARYLAND FARMER.

This is the 11th number of the 15th volume of THE MARYLAND FARMER; and we claim it has been published longer continuously, without cessation, by the same publisher, than any other farmer's journal in this or other States south of Philadelphia.

A popular magazine,—as attested by our subscription list, frequent kind letters from parties, and the notices of our brethren of the press in this and other Southern States,—and is also a *great advertising medium*, as shown by the numerous new advertisements in the present number.

During the present year, we shall allow nothing to prevent our making it superior to all former issues, and maintain beyond dispute its high character.

Its aim will be to admit nothing in its columns like Theory, unless based on science controlled by reason; nor anything called Practical, unless proved by successful experiments.

If our old subscribers will do us the favor to canvas for THE MARYLAND FARMER, by showing it to their neighbors and soliciting the subscriptions, they will confer a great favor on us, and we do not doubt, confer a greater profit on the new subscriber.

MAKE UP CLUBS.

To Clubs of five or more, with pay in advance, we will supply THE MARYLAND FARMER at \$1.00 each, per year.

Any one who will send us six dollars for six subscribers, shall receive a seventh copy for getting up the club.

These terms enable persons to get the Magazine at \$1.00 per year, postage paid.

YOUNG MEN!

It is an easy way to make money by getting subscribers for THE MARYLAND FARMER. Send 15 cents for Specimen Copies, and ascertain what Liberal Commissions we will allow.

ADVERTISERS.—While we are gratified to perceive from the large number of advertisements in the MARYLAND FARMER—increased monthly—that our journal is appreciated as a profitable medium, yet we are surprised that Farmers who have stock of all kinds for sale do not advertise more freely; merchants properly estimate the value of advertisements, while farmers lose hundreds of dollars by not doing as the merchants do. We have daily enquiries where poultry, eggs, sheep, cattle, horses, &c. are to be had, and at what price. We can not answer in all cases. It is true we have an agency ourselves for the purchase of such articles, but we would have our patrons deal personally with the owners, who advertise.

ATTENTION! SUBSCRIBERS!

Gentlemen, we do hope you will remember us when you are reaping what we hope is a bountiful harvest for each one of you in this year of plenty. All over the country the labors of the husbandman has been blessed with a noble reward, and we trust that as co-laborers we shall not be left unpaid.

We wish our subscribers to do us the favor to call the attention of their neighbors who do not take our Journal, and ask them to subscribe to the MARYLAND FARMER as a family paper, which will meet their wants in most particulars, being always filled with practical original matter and well selected articles upon all subjects connected with farming, horticulture, house-hold economy, stock raising, the dairy, apiary, &c. Price \$1.50 per year or five copies for five dollars.

We will send the MARYLAND FARMER for this month and the balance of the year FREE to all new subscribers for 1879. Our subscribers are requested to notify their neighbors of this offer.

MARYLAND FARMER,
141 W. Pratt St., Balto., Md.

MR. BAYARD'S ADDRESS AT PIMLICO.—We are forced by press of matter to defer the publication of Mr. Bayard's admirable address to next month, but it is one of those things that will keep and be always fresh and refreshing when used.

COL. MARSHALL P. WILDER'S eightieth birthday was celebrated by a great number of the agricultural friends of this eminent horticulturist, with a great ovation at The Parker House, Boston, on the 21st of September. It was a great success. Col. Wilder, in response to remarks by Alderman Charles Breck, made a very handsome and feeling address. He concluded thus:—"My labors are mostly over. Soon I shall be resting in the bosom of my mother earth; but if I can believe I have done anything to advance the great interests of our land, and which shall contribute to the happiness of my fellow men, I shall, so far as this world is concerned, die content, feeling that I have not lived in vain."

COMMISSIONER LE DOOK, of the Agricultural Bureau, has ordered from Japan a lot of bamboo sprouts. He proposes to introduce the culture of bamboo here on a large scale. It is estimated that \$20,000 worth of Japanese bamboo is annually consumed in this country for educational purposes alone. Patriotic school children will gladly consent to be flogged with home-raised bamboo, for there has long been a prejudice against the odious Japanese article. Le Dook will live in history as the great Bamboozler.—*Balto. Gazette*

Agricultural Society for Baltimore County.

There has been recently filed in the clerk's office of the Circuit court at Towson town, a certificate of incorporation of a new organization styled "The Agricultural Society of Baltimore County." Its objects are advancement, improvement and protection of agriculture in all its branches and the holding of fairs and exhibitions. The operations of the society are to be carried on in Baltimore county. The capital stock is \$10,000, consisting of 2,000 shares of \$5 each. The corporators named in the certificate are Saml. Brady, Dickinson Gorsuch, Thomas B. Todd, Wm. B. Sands, Daniel Jenifer, Wm. D. Brackenridge and Chas W. Semmes, and they with Samuel M. Shoemaker, John Ridgely of H., James L. Suttan, Samuel M. Rankin and Benjamin F. Taylor constitute the board of managers to conduct the affairs of the corporation for the first year.

We are glad to see this movement in the large wealthy and productive county of Baltimore, and hope its efforts will be crowned with such gratifying success as has resulted in like enterprises in Harford, Frederick, Montgomery, Kent, Washington Alleghany and other counties, where such Societies are at present in a flourishing condition.

THE PIEDMONT AGRICULTURAL FAIR, held at Culpeper, Va. last month, was as usual a success. The first premium South Down Buck, exhibited by Mr. Bowman of Augusta co. was purchased for Mr. J. S. Barbour, and sent to his fine flock, at Poplar Hill Farm in Prince George's co. Md., the elegant estate of that fine old country gentleman, the late Robert Sewall Esq. We are glad to see that the owners of large farms in this noble old county are turning their attention to the improvement and increase of their stock, which will lead to growing more grass and diversifying their products; consuming at home the corn crop; lessening the amount of labor and expenses and supplanting gradually the old system of making tobacco a specialty, which at the present time, is clearly an unprofitable crop as cultivated under the old-time management.

Stock raising must in the end, and that soon, be not only profitable but a leading feature in farming for home consumption and for exportation.

A New York dispatch, Oct. 5, says: "The shipment of cattle and fresh meat is increasing. The Circassian, of the Anchor line, which started for Glasgow to-day, carried 61 head of cattle and 991 quarters of fresh meat; the Helvetia, of the National line, for Liverpool, 30 horses and 538 quarters of fresh meat; the City of Richmond, of the Inman, line for Liverpool, 200 tons of fresh meat; and the Sorrento, of the Wilson line, which sailed for Hull, 85 head of cattle and 300 sheep.

NOTICE

We would call attention of our subscribers and those who are not subscribers to the fact that we shall in January—the first number of our 16th volume—begin the publication of the valuable address of Hon John L. Hayes, L. L. D. on the “RESOURCES OF THE UNITED STATES FOR SHEEP HUSBANDRY AND THE WOOL MANUFACTURE,” and continue from the December number of the MARYLAND FARMER, the able Essay of THOMAS MOORE, in 1801, on THE IMPROVEMENT OF WORN OUT LANDS. These two practical and well written papers will of themselves be worth ten times the subscription price of the MARYLAND FARMER for the year 1879. This part of our programme for the next year, we now mention as an inducement to every farmer to subscribe at once for the FARMER, and to each new cash subscriber, we will send the December number of the present year.

We hope it will not be thought amiss in us to call attention in this connection to the following flattering notice by the “United States Trade Journal” of New York :

THE MARYLAND FARMER.

“The September number of the *Maryland Farmer*, one of the best Agricultural periodicals of the country, is before us, and taking it as a sample number, we can have no hesitation in pronouncing it true to its declaration of devotion to Agriculture, Horticulture and Rural Economy. We find in it much valuable practical material with which the agriculturist can enrich his field of knowledge, and which, if applied, will no doubt add greatly to the yield of his farm products. The *Farmer* is edited and published by Ezra Whitman, with Col. W. W. W. Bowie as associate editor. The monthly richly deserves its present patronage and a lengthened subscription list from the farmers everywhere.

“Why does not every agriculturist, large and small, in Maryland and Virginia, subscribe to the *Maryland Farmer*? From our stand point we cannot see why they do not. The cost is certainly inconsiderable, only one dollar and a half a year, and in clubs of five only one dollar to each person. Address E. Whitman, 141 West Pratt Streets, Baltimore.”

See also what the Frederick Examiner says :

THE MARYLAND FARMER.—We have received the *Farmer* for October, 1878, and its pages, as usual, are well filled with matter calculated to instruct the farmer, gardener, poultry and live stock raiser, &c. The present number is finely embellished. Published by Ezra Whitman, Baltimore, Md., at \$1.50 per annum in advance, or less to clubs,

The Old Maryland Agricultural Society.

The author of the compilation of facts, entitled a “History of the Maryland Agricultural and Mechanical Society,” has the self-gratulation that it has met with hearty commendation on the part of a great many of those who had a hand in its formation and its successful career for several years ; and he has not heard a single objection to the manner or the matter that constitutes its “make up,” except on the part of one solitary “old friend,” who says it is untrue because the author must have been “impelled only by the force of circumstances,” “to color them as he has, and to emulate, as a historian, the player who proposed to give the tragedy of Hamlet with the character of Hamlet left out.”

What is meant by the “force of circumstances,” is not altogether clear, unless it be a mean insinuation that because the author—an “old friend”—is associated with Mr. Whitman as editor of the MARYLAND FARMER, he was *obliged* to, or thereby “impelled” to put Whitman prominently forward. This would seem to be the true intent of our cotemporary, because he goes on to say in another paragraph :—

“So, whilst he says ‘to eulogize the living would look like time-serving,’ that ‘E. Whitman was the only agricultural implement manufacturer present’ at an early meeting of the Farmer’s Club—who (we mean no offence to Mr. W.) with his known energy in pushing business, was, perhaps, more likely than any other member of that trade to be present where farmers met together—and that the same person received one of the largest prizes at the first show of the society, *he* may deem the points most deserving emphasis in his narrative, though others may see little connection between them, and the origin and progress of what was an influential and agricultural institution in our State.”

The reader who ever he may be, we feel sure, will not believe that because of our business connection with Mr. Whitman, that we should falsify history or go out of our way to eulogize him, from any such sordid motive. We gave the *fact*, because we found it so recorded by the Secretary, Mr. Sands himself, and because we desired to show that this was a *mechanical* as well as an *Agricultural* Society, and that in its incipency, Mr. W. was at that day the only representative of the mechanical interest present, tho’ the author stated in this history that large numbers of that honorable class afterwards contributed much to the welfare of the Society, chief of whom was the kind-hearted lamented friend of the author, the late Rob’t Sinclair, Jr.

As to the slur contained in the too often inaptly quoted, but trite saying about Hamlet, it is apparent that our cotemporary was only restrained by his well-known modesty, from saying what he

meant in plain language, that it was not a true history of the Society because the name of Samuel Sands was not used as often pre-eminently as it should have been. He would have it, that a history of the old Society which did not all the time recognize him as the chief actor in its "inception," management and success, would be as gross a falsification of the truth, as would be a history of the United States with WASHINGTON left out.

To establish such conclusions the venerable ex-Secretary of the Society says:

"Except that our cotemporary was entirely wrong as to the inception of the society, the agencies at work, the methods by which they worked and the motives actuating them, and that he withheld the credit due to the real founders and promoters of the enterprise, his narration of the outline facts, patent to all, is accurate enough."

And further, writes to Judge Dobbin to confirm his claim to be the *head and shoulders* of the Society. The Judge very properly says at this late date he can only recall "*a general recollection of the facts which seem to be there truly stated.*" And says that it is more than probable that before he made the motion to organize an Agricultural Society, he did ascertain that it would be acceptable to a majority present, and that in looking over the "names of those most prominent in the meeting, I recognize none with whom I was more likely to have consulted than with yourself." The learned Judge closes his letter, by saying "to no one, more than to you, did the Society owe its success."

Now, this is not saying that he, Judge Dobbin, repudiates the statement made by the author of the History, that he was entitled to the credit of being the mover of the resolution that initiated the Society. That was all the author intended, not deeming it necessary to assert that he, Judge Dobbin, was moved thereto by the suggestions of Mr. Sands, and as our cotemporary would wish the public to believe, was only the mouthpiece of Mr. Sands, as he Mr. S. would wish the public to believe that it was *he* alone who "halted" the committee and caused them to supplant Mr. Glenn by Mr. Calvert after the committee had decided to report the name of Jno. Glenn as President. This last assertion of Mr. S. is not remembered, (as the writer of this article learns) by at least *one* prominent member of the nominating committee. Perhaps it is a *lapsus memoriae* of our aged cotemporary, like that which Mr. Davis corrected in regard to the successor of Judge Duvall on the bench of the Circuit Court of the U. S.

Now, while we can not see that any evidence is brought forward to show that Mr. S. was either the first to suggest the organization of the Society, or was the chief in its future management, we do ac-

cord to him what Judge Dobbin says, that "to no one, *more* than to him did the Society owe its success." We have said in words almost as much in our true (?) history by quoting the resolution passed by the Society complimentary to him, but beyond that we refrained, because we had started out with the expression that "*to eulogize the living* would look like time-serving."

But our "old friend" is so punctilious about compliments, we shall make in future his case an exception, and use his name whenever we can do so consistent with the records of the day when, in his own language, "*the bulk of the labors of the Society*" were detailed upon him. ("We mean no offence to Mr. S.) with his known energy in pushing business, was, perhaps, more likely than any other member of that trade"—the editorial craft—"to be present where *farmers* met together—and that the same person received one of the largest prizes," (a silver cup filled with gold pieces,) "*he* may deem the points *most deserving emphasis* in the narrative, though others may see little connection between them, and the origin and progress of what was an influential and useful agricultural institution of our State."

Mr. Sands did work, and work well; but he was interested to do so; the Society built up his paper, and indirectly through its influence and that of its members, put money in his purse. In a word, if he *will* have it, the society was of far more benefit to him than he was to the society, so that is the whole matter in a nut-shell.

We have given this matter more consideration than our readers, we fear will think allowable, and we promise not to trespass again upon their time or occupy space that can be better filled. We shall go on to pursue the even tenor of our course regardless of the complaints, unjust as they are, of our "old friend" and trust that in our future sifting of the ashes of the past, we may find something wherewith we shall be able to satisfy the cravings for unqualified praise of our "old friend" and present "cotemporary" and thus satiate his desire for notoriety and at the same time gratify our natural disposition to compliment our friends, especially "old" ones, who have in old lang syne showered on us so many like favors.

The *Maryland Farmer*, for August, is, as its proprietors justly claim, "the most useful publication for farmers issued," being at all times, filled with information of a character that tends to improve the ideas of some of the "old foggy" methods still adhered to by some opponent of inventive genius and modern machinery.—*Baltimore Live Stock Bulletin.*

PRIZE ESSAY,
ON THE
Renovation of Worn-out Land.

BY EDWARD STABLER.

[First published in American Farmer, Oct. 1848, and republished by same Journal in 1878.]

We find a cotemporary has lately exhumed an Essay, which received a premium thirty years ago. But for the editorial trumpeting, and the Brayings of its quasi-author in heralding its resurrection we should have not noticed it, as it has long since lost any value whatever in our opinion, because within *ten days after it made its first appearance*, a writer in that sterling old country paper—the Upper Marlboro' Gazette, showed that if not a *plagiarism*, it was full brother to such a respectable party.

We give now the article just as it appeared in the issue of the Marlboro' Gazette of the 10th of Oct., 1848, just ten days after it was published in the American Farmer for the first time.

MR. EDITOR:—In one of my late Agricultural researches among some old Pamphlets on the subject of "*renovating worn-out lands*," I was struck with the great similarity of views between an able writer of Montgomery county as far back as 1801, and the views of the winner of the first Premium offered by the liberal publisher of the American Farmer. Merely as a reminiscence of bygone times, and to show how singularly sometimes the views and the language of writers (*fifty years intervening*) will assimilate, I have arrayed a few of Mr. Stabler's sentences in juxta position with Mr. Moore's, who wrote a pamphlet in 1801. Montgomery county has the honor to claim both writers as her citizens.

Mr. E. Stabler in 1848.

I would ask the advocates of shallow plowing, or the *skinning system*, as it has been aptly termed, if they have not observed the beneficial effects, of earths taken out of cellars, wells, pits, &c., &c., when applied to very poor land?—And have they not observed a luxuriant growth of grass and weeds on ditch banks and mill races; even to the highest points, when level enough to retain the moisture that falls? I have often noticed such effects; and have almost uniformly ob-

Mr. Thos. Moore in 1801.

But let me ask them, have they never seen the effects of earth taken out of cellars and wells, when applied to poor land?—have they never observed the luxuriant growth of grass and weeds, at the edge of a bank taken from a mill-race, or large ditch, and frequently on the very top, when flat enough to retain moisture? for my own part I have long been in the habit of observing these things, and do not recollect that I ever saw any earth taken from a considerable depth be-

served, that if earth thus taken from below the surface, was capable of being pulverized by frost or tillage, increased fertility was the result. Such being the case, is there any valid reason for supposing that still nearer the surface, so much difference can exist, that while one will render the same land sterile, the other will positively enrich it?

If advantage will result from mixing with the soil, the earth taken from many feet below the surface—and that such is the case I have had repeated evidence, and using it for this express object—I cannot perceive why a portion of the same fertilizing property may not be found in the earth, only a few inches or a foot below the surface.

* * * Lands that are to be plowed much deeper than usual, should be broken up in the fall; no crop should be seeded the ensuing season, that does not admit of frequent plowing or harrowing.

* * * No land with a clay subsoil, should be plowed either deep or shallow, when in a state too wet to crumble or break freely before the plow. The injury is irreparable, at least for that season, as nothing short of a winter's frost will effectually pulverize it

Many other examples might be adduced to show that the whole of that branch of the Essay of Mr. Stabler which treats of *deep plowing* is very strikingly alike Mr. Thos. Moore's which was written 48 years ago. At a more convenient season I may continue a review of this *first premium Essay*
P. P.

SORE BACKS.—There is a cheap, simple and efficient way to cure sore backs, and old sores of any kind. Take white oak bark, peel the ross or outside off, add water, and boil it down till it is as black as ink. When cool, add to a gallon of the bark extract two ounces alum. Wash the affected part two or three times a day, until cured.—*Cor. Prairie Farmer.*

low the surface, which was capable of being pulverized by frost or tillage, without evident advantage, even when clay had been applied to clay and sand to sand. Seeing this is the fact, is there any good reason for supposing, that as we ascend toward the surface, such a difference will be found in the properties of the earth, that this will render the same land sterile, that the other will enrich? I confess I see none. I cannot even see, why we may not with propriety suppose that the first six inches of earth next below the usual plowing, should be possessed of all the fertilizing qualities, that the same kind of earth would be, if found six feet below.

Lands that are to be plowed much deeper than usual, ought to be broken up in the fall; no crop should be put in that season, that requires to be seeded before it can have several ploughings and harrowings at proper intervals.

Ploughing land that contains a considerable portion of clay in a state too wet to break, as the furrow leaves the plough, is thereby rendered more compact; * * * indeed I believe nothing short of a winter's frost will effectually pulverize it.

THE DAIRY.



P
Imported Ayrshire Cow, 'Lady Kilbirmie.'

PROPERTY OF STURTEVANT BROS., WAUSHACON FARM, SOUTII FRAMINGHAM, MASS.

The Poultry House.

For the Maryland Farmer

Poultry for Profit.

In our last article we referred to the profit of keeping poultry, and partly promised further reference to the matter which we now propose to do. The profit arising from keeping poultry, must come largely from the eggs or young fowls.

It is admitted by most Poultry men among the farming class, that with care in saving, and husbanding, the manure will fully and more than pay for the care of the fowls; this we believe, for there is no manure more valuable, when it is so manipulated, as it should be, so as to preserve all its manure qualities.

Then what ever balance comes from eggs, chicks &c. above the cost of food, is clear profit. Now the breed of fowls to be handled, will depend very largely upon the product desired; if eggs are sought, such a breed of fowls should be kept as will furnish the largest number during the year, or in other words a non-setting breed should be grown.

As it is well known, there is a vast difference among dung hill fowls; one breed will be great layers, with little or no disposition to set; another will belong to the setting class, and having laid out their litter (as it is termed), will maintain an obstinate desire to set, so in this case, the production of eggs will be a partial failure, which would take off a considerable portion of the profit; but if on the other hand, young birds are desired, then it is good economy to secure such breed as are good setters, and at the same time are good mothers. It is not unfrequently the case that a hen may be a good setter and yet be deficient in those qualities that go to make a good mother, which is equally as important.

Presupposing that the eggs all, or nearly all, possess the requisite fertility, a hen may be such an unsteady setter as to destroy the incubative force of the eggs; so, it is necessary, in order to secure a good hatch, unless artificial means are employed, that the hen should not abandon her nest during such intervals as would destroy the life of the young chick in process of formation.

But again, the profit from young chicks will be small, even after an excellent hatch, if the mother is so careless in tending to her young brood, as that they should drop off one by one, and so be greatly reduced in numbers.

At all times it is to be supposed that the breeder or raiser is to exercise all necessary care, notwithstanding which there will be many mishaps.

Still another point is to be considered when young chicks are to be raised, and that is that such a breed be adhered to, as are of early maturity, and possess large size, especially when weight enters into the calculation of price received.

The Cochins are very much admired, especially the Partridge Cochins, because of their easy maturity and large size.

As a general rule, the earlier young chicks can be brought into market, the better the price obtained; hence it is that some growers of fowls put their hens to setting even in the midst of winter, having a warm poultry house with stove and fire, so that with the early spring, they can put the young birds upon the market.

We had a neighbor who had a hundred young chicks growing, while snow was yet upon the ground last spring. Nearly the same rule applies to the market for eggs; if such food can be given as will induce laying in the winter season, which can be done with warm quarters, a much better price can be realized for the eggs than during the flush of the laying season. Mr. Alanson H. Fuller, a very successful producer of eggs, makes up his collection very largely of the Leghorn breeds, employing both brown and white, and a cross of the two which he considers superior to either of the original breeds as layers.

At one of the meetings of the Columbia Farmers Club, Mr. Fuller gave the following statement of profits from 80 White Leghorn fowls from, April 1873 to Oct. 1873:

ACCOUNT.	
80 Hens at 50 cts. each,	40.00
47½ bus. corn,	34.72
12 bus. oats.	6.30
2 bus. buckwheat.	50
250 lbs. meal,	4.07
Wheat shorts,	1.00
100 gallons sour milk.	8.00
Oyster shells,	50
13½ doz. eggs for hatching,	3.01
	<hr/>
541 doz. eggs,	\$98.10
Chickens set,	\$135.66
130 hens per 50.	12.50
Value of manure,	65.00
Chicks and Eggs used,	10.00
	<hr/>
Cash,	\$233.16
	<hr/>
Profit,	98.10
	<hr/>
	\$135.00

Mr. Samuel E. Lymyn also made a statement regarding the cost of keeping fowls, in which he found that for the entire year, the cost was a few cents above one dollar for each fowl; this is somewhat less than Mr. Fuller's figures would indicate, but a profit of \$135.06 upon a \$40 investment, should be satisfactory to the average farmer.

Columbus, Conn.

WM. H. YEOMANS.

The Duck Question.

Again we must call the attention of breeders to the profit in ducks, when properly cared for, and when there are facilities at hand for breeding them properly. Many a farmer has realized far more from breeding ducks than he would obtain from his chickens, for they are very hardy, and lay remarkably well during some parts of the season. As soon as they commence to lay, the eggs should be carefully gathered and put away; as soon as a hen (not a *duck*) wants to sit, set her with duck eggs, and let her hatch and care for the brood till they are able to take care of themselves. A hen will care for a brood of ducklings far better, ordinarily, than will an old duck. If the ducks think they have laid enough eggs, and show unmistakable signs of waiting to sit, put them into a convenient coop, put one of your most vigorous young drakes with them, and they will soon be willing to shell out eggs again, which should be set under hens as fast as convenient, so as to bring as many out at a time as possible, thereby lessening the cost of attending to them. A shallow tub, kept well filled with water, will afford plenty of bathing room for the ducklings until they are two or three months old, and perhaps longer.—*Poultry World*.

Value of Hen Manure.

Should all the droppings from the roosts by hens be carefully saved in barrels, and every spring and fall this manure be composted with any good soil or muck from swamps, and kept a few months, its value for any crop is equal to Peruvian guano, and may, I think, be estimated at fifty cts. per fowl per annum. From fifty hens I save about 10 barrels of the pure hen guano during the year. What I save from November to April I compost in the spring with the soil. First, I spread soil in a circle to the depth of three or four inches, then I spread hen manure about an inch deep; then I spread another layer of soil, till the heap is completed, using about four times the bulk of soil that I do of manure, the last layer being soil. The top of this compost heap I make flat to catch the rains, then I cover with any refuse or straw, then place some sticks of wood or boards against the covering to keep it in its place, and in two or three months it is ready for use, having become thoroughly incorporated with the soil, but as the season for planting is then nearly past, I leave the heap till the next season, when I use it with what I compost in November. Perhaps it would be better to make a compost in March, where the climate will admit, and use the manure for crops planted the last of May or early June; but I can discover no loss by keeping it till the next season. A gill of this compost in a hill of corn will be equal in effect to half a shovelful of manure.—*Woodberry Md., News*

OUR NORTHERN TRIP.

When at the North, we put ourself to some inconvenience to call upon our old friend Captain Howard, at his fine farm in Winthrop, Maine. We were more than repaid by the kind reception we met, and a walk about his grounds. We went into and examined his promising field of Compton corn, and were so pleased with its appearance, we requested Capt. H. to give us for the MARYLAND FARMER a statement of his mode of culture and the amount of yield, when he gathered the crop which we then estimated at 75 bushels per acre. He has kindly complied with our request, as will be seen by his letter in this number of the FARMER. He planted his corn wider apart than is usual in New England.

WAUSHAKUM FARM.

After being at the New England Fair, we visited, by invitation, the Brothers Sturtevant at South Framingham, Mass. Dr. Sturtevant, the editor of our able cotemporary monthly—the *Scientific Farmer*, Boston—met us at the station and escorted us to the beautiful home of the three brothers.

It is here that he has been for years experimenting with corn, and is still progressing satisfactorily with his scientific investigations in that direction. The entire farm is well and very neatly managed in every department. There seemed to be a great abundance of fruits, apples especially. The garden crops were splendid. Large onions grown from seed sown early in the spring, seemed to be literally piled on top of each other like we have seen in hills of the potato onion. He said all that was needed to grow onions was a perfectly prepared bed, exceedingly rich, thick sowing, soil kept light and free from weeds by the hoe, rake and hand picking. We estimated what we saw to yield at the rate of several hundreds of bushels per acre. His fields of corn, were dense masses of vegetation, so thick one could hardly see his neighbor 10 yards distant, and the stalks well cared, some with two ears, and many we pulled which were 10 to 13 inches long, eight rowed, hard, rather flat and long grains, yellow corn. We closely examined it and estimated he would get from 90 to 100 bushels shelled corn per acre. The corn sown in drills for feeding green and for corn fodder, was of Southern tall growing variety, from 1 to 3 inches apart in drills 30 inches apart. It was very luxuriant, and 8 or 10 feet high, well bladed and more impenetrable than a thickly seeded rye-field. The great amount of forage per acre was *prodigious!!* as Scott's Dominie Sampson would have exclaimed. Indeed the crops as they stood, looked to us more like cane-brakes than corn-fields. The brothers

Sturtevant plant their corn in drills 36 inches apart, and 22 inches apart in the drills, leaving 4 stalks in the hill. This is exceedingly close planting, yet the land was very rich and seemed to have been well cultivated all the time from the seed going into the ground, until the corn begun to tassel.

Remembering the greater distances that is given in Southern corn culture, where as much as 200 bushels of shelled corn per acre has been produced, we ventured the query to Dr. S.: Might not more *grain* on his land be made by wider planting—giving more air and sun-light and with fewer stalks—each having thereby more ears? He thought not, certainly not in the North. We again suggested, that as in the South, where distance in planting corn was much greater, say 4 by 4 feet and two stalks in a hill, or if drilled, 3 feet by 10 to 15 inches, and only one stalk in a place, there were found but an insignificant number of stalks that proved "infertile," might not the evil of infertile stalks, which he is trying by experiment to overcome, be attributable to excessively close planting? The learned Doctor dissented most energetically. It is true that low growing corn of the North requires much less distance than the Southern tall growing varieties; but 4 stalks in a hill does yet strike us as too many in one bed for either health or comfort. This "bundling" of the olden day, it was claimed, did not lead to production as largely as when two were only left in a bed. The Doctor can show 4 or 8 ears to a hill of four stalks, but we have seen 12 to 18 ears on two stalks in not very fertile soil in Maryland, and 4 ears of gourd-seed yellow corn from 2 stalks in a hill that would, when shelled, measure and weigh more than the 8 ears of Northern corn or the 18 ears of the Baden Prolific Southern corn. We ourselves once showed an ear of yellow gourd-seed, big cob corn at the Agricultural Fair in Prince George's County, which had 32 rows, and shelled a quart and one wine-glass. Dr. Sturtevant has by his skill certainly achieved one great success,—he has reduced the cob so much in size that it almost amounts to nothing. We brought away with us large long ears that have cobs more like pipe-stems than corn-cobs, and nearly all of his corn has ears filled out to the end perfectly with even the one grain just at the apex to complete the entire covering the cob, as if nature placed a key-grain to support the arch of the eight columns of grain. We trust that the learned experimenter in corn will continue his work until this inestimably valuable product will have reached perfection in its improvement.

He has already made many botanical discoveries in regard to this grain, both curious and wonder-

ful, we allude to among others, the perfect representations of embryo ears of corn in each joint of stalk as shown by the microscope.

Hay, pasture-grass, corn and root crops seem to be the chief products of the farm as means for supporting the great feature of the Waushakum farm-milk.

These gentlemen have a choice and beautiful herd of Ayrshires. All their herd are imported animals or near descendants of imported ancestors. The cut of Lady Kilbirnie, given on another page we begged, as it is a portrait of a good representative animal, and as we think a fair type of that famous dairy breed. The Messrs. S. have a number of choice young Ayrshires coming on, some of the males we much admired. There is a look, it seems to us, about the Ayrshires as if they were made by nature for the pail,—just as the Jerseys seem to us for butter, yet the Ayrshire make prime butter, if we are to judge of it from what we ate at the hospitable table of these Sturtevant Bros., where we enjoyed an abundance of many other good things, while enjoying the society of the accomplished ladies of the household. We can not forego the pleasure of mentioning the variety of nice bread set before us, and strange to say, a very remarkable sort of cantaloupe, which these gentlemen mean to introduce next season to the public. Of course, New England is not the land of melons; but to us from the famous melon region of Maryland, it was a surprise to see large cantaloupes, in September looking outwardly as green as a gourd; but when cut, were found to be deep meated, rich, reddish yellow and delicious. We were glad to learn that seeds of this new variety of cantaloupe will be for sale next season.

This farm was worn-out land ten years ago, when the Messrs. Sturtevant got hold of it, and in that short time have brought it to its present high condition by skillful management and the use freely of Stockbridge fertilizers. This is the only fertilizer they have ever used. Of this manufactured article we shall speak hereafter when we give an account of the Boston Abattoir.

Our visit was one of the pleasantest we ever made to anybody—the genial manners of our friends and the kind reception by the ladies of the household, made us feel at home and loth to leave such hospitality. The Doctor took us a drive the next day for 15 miles in circuit, calling at two of the best farms in that section, Mr. Edward Burnett's, Deerfoot Farm, Southboro, Mass., and that of Mr. E. F. Bowditch's Millwood Farm, Framingham, Mass. These visits occupied several hours, and we returned to Boston in the evening. Of

these well conducted farms we shall write in a future number.

During our drive, we were most forcibly struck with the firm, nicely graded roads, shaded by double rows of forest trees on each side, with a good foot path along the road, between the rows of trees—resembling in the whole a long, town-street. At short distances were neat dwellings, some very elegant and all having grounds ornamented by beautiful flowers and handsome trees and shrubbery, and strange to say *unenclosed*. No stock of any sort, poultry or even dogs running at large to injure or offend any person or thing. Every where peace and good neighborhood seem to prevail.

The absence of fences or enclosures of any sort along the highways or on large farms, except a few lots well fenced near barns, for stock to exercise and graze, was a very marked feature in this section, and to us Southerners accustomed to bad roads, worm-fences every where and abominable gates, it was wonderfully impressive.

Traveling is so cheap now that our farmers would be well repaid expenses by going North and personally examining the systems of farming, seeing the roads, and learning how economically they are kept in repair, and taking lessons in the general economy of farming, by which these people with a cold clime and land hard to cultivate, manage to live well and make money as is indicated by the thrift and prosperity that is manifested every where. It seemed to us that our farmers could learn so much by a visit to the homesteads of New England, that they would soon make our beautiful region what nature and climate designed it to be—the garden spot of America.

We have every advantage that nature can lavish upon us, and yet we are far behind our Northern brothers who labor under innumerable disadvantages. Our lands are naturally far more fertile, and one man can till four or five times as much ground, as he could in the North. Stock can be raised with half the expense and trouble and the surroundings of our homes can be adorned with far less cost. We cannot but think that our people lack energy, industrious enterprise, economy, and are prejudiced too much against "book-farming," as it is called. We stick to the old time ways of growing special crops alone, such as grain and tobacco, neglecting stock raising of improved breeds; but little diversity of crops, indifference to good roads, fondness for long lines of fences, contempt for ornamental grounds, and want of concert of action in neighborhood improvements,

DOMESTIC RECIPES.

THE POETRY OF CORN BREAD.

Two cups Indian, one cup wheat,
One cup sour milk, one cup sweet;
One good egg that you will beat.
Half a cup molasses, too,
Half a cup sugar add thereto;
With one spoon of butter new;
Salt and soda each a spoon;
Mix up quickly and bake it soon:
Then you'll have corn bread complete:
Best of all corn bread you meet.
It will make your boy's eyes shine,
If he is like that boy of mine;
If you have a dozen boys
To increase your household joys,
Double, then, this rule I should,
And you'll have two corn cakes good.
When you've nothing nice for tea,
This the very thing will be,
All the men that I have seen
Say it is of all cakes, queen;
Good enough for any king
That a husband home can bring;
Warming up the human stove,
Cheering up the heart you love;
And only Tyndall can explain
The links between corn bread and brain.
Get a husband what he likes,
And save a hundred household strifes.

PEPPER CHOW-CHOW.—Cut in half, and remove the seeds from twenty-five peppers; soak in salted water for three or four hours; chop fine and twice as much chopped cabbage as peppers; one tablespoonful each of ground cloves, allspice, mustard seed, whole—and salt; mix thoroughly; with cold vinegar and tie down.

BOILED DUCK.—Dress and rub the inside well with salt and pepper, truss and tie in shape, drawing the legs in to the body, in which place two sage leaves, a little finely-chopped onion, and a little jellied stock or gravy; rub over with salt and pepper: make a paste in the proportion of half a pound of butter to one pound of flour, in which inclose the duck, tie a cloth around all and boil two hours or until quite tender, keeping it well covered with boiling water. Serve by pouring round it a brown gravy, made as follows: Put a lump of butter the size of an egg in a saucepan with a little minced onion; cook until slightly brown, then adding a small tablespoonful of flour, stir well, and when quite brown add a half pint of stock or water; after cooking a few minutes, strain the gravy, and add the giblets, previously chopped and stewed till tender.

LADIES DEPARTMENT.

A November Chat with the Ladies.

BY PATUXENT PLANTER.

NOVEMBER.

"The red sun gathers up his beams
To bid the withered earth farewell,
And voices from the swelling streams
Are ringing with the evening bell;
The cold lake throbs with restless grief
Where late the water lilies grew,
While autumn fowl, and autumn leaf,
Are sailing down the river blue.

Forsaken are the woodland shrines,
The birds to warmer lands have fled,
And winds are wailing through the pines
A dirge for summer's glorious dead;
E'en man forsakes his daily strife,
And muses on the radiance flown,
As if in nature's changing life,
He saw the picture of his own.

A few brief days—and when the earth
Come stealing up the slope of Time;
They bear a train of smiles and tears;
Of burning hopes and dreams sublime;
But future years may never fling
A treasure from their passing hours,
Like those that come on sweeping wing
From memory's golden plain of flowers.

The morning breeze of long ago
Sweeps o'er my brain with soft control,
Fanning the embers to a glow
Amid the ashes around my soul;
And by the dim and flickering light
I see the beauteous form appear,
Like one returned from wandering's bright,
To bless my lonely moments here."

It is just so. The Poet is right. It is in November, above all months, that nature seems to recall most forcibly to the reflective mind of man, when he snatches a few moments from the busy, brain-distracting affairs and employments of the day, how fleeting are human events and human life. The falling leaves tell the story of the brevity of life as well as the certainty of death, while, oh joy! the fallen fruits declare the assurance of a glorious *new life* in the future.

I always did love the sombre "dreamy November," as lamented Bryant called it, with its "melancholy days," if that can be called *melancholy*, which calls up so many sad but fondly to be cherished reminiscences of the past. Somehow I al-

ways feel the happier from communing through memory with friends amid pleasant scenes in the long past Novembers, when we were in the green leaf and full of hope—and contrasting them with the present, when I alone am left in the "sear and yellow leaf" trembling to fall. This is what the Poet may mean by "the saddest of the year," but to me it is sweet to dream,

"I see the beauteous form appear

Like one returned from wanderings bright
To bless my lonely moments here."

Pardon this soliloquy, which is inspired by the touching sublimities which nature has thrown around a retired spot that I have in my evening walk chanced upon and paused to rest and meditate on the *past*, while I drink in the present fullness of the gorgeous drapery of the woods and listen to the rural music which floats around from hill and dale and river, composed harmoniously of the lowing of herds, pipings of the quail, varied insect sounds and the rippling waves that flow at my feet. But we let these lugubrious thoughts pass and turn to others of the present in continuing my account of my trip to New England.

In Boston, beside the many historic objects, like Bunker Hill Monument, Faneuil Hall, old South Church, &c., I looked with wonder upon the great massive ware-houses and stores that have sprung phoenix-like from the ashes of the burnt district, when Boston some years ago suffered from a conflagration almost as great as that of Chicago. Boston is certainly a solidly built city, and her "solid men of Beacon street" are as unassuming upon their wealth, and as courteous to strangers as are our most popular mannered southern millionaires. These men seem to lavish their money more in the adornment of their grounds than in furniture, carriages and dress, yet, all these minor matters seem to be attended to with becoming taste. Their equipages and horses are very fine, but have not the brilliant display of the turn-outs of the rich men of New York. Boston Common is a place to be admired for its beauty no less than for its great usefulness and convenience, being in the heart of the city, where all, rich and poor, can without expense enjoy its comforts and pleasures. Just imagine a large portion of Druid Hill, around or close to the City Hall in Baltimore, and you have an idea of what this famous old Common is to Bostonians. The market is the finest and neatest in the Union. Its stalls are all separated by divisions, as if they were separate stores, and many are closed and locked up at night, doing away with the necessity of removal daily of the contents. Everything is neat and clean, and ladies can market as comfortably as if shopping.

I visited several florists' establishments and the grounds of some of the elegant private residences in Boston and Cambridge, among the oldest and largest of the former, was Mr. Hovey's. Here were green houses and extensive grounds filled with innumerable plants and flowers, many of which are very rare. The Rhododendrons were here in plenty and the largest sized bushes I ever saw. This superb native plant seems to be very popular at the north. The Hoveys put up a vast number of bouquets daily and find ready profitable sale for them in Boston and other cities farther south and in the west.

This city and its suburbs abound in flowers and every event of importance, public or private, is marked by a profuse display of flowers and evergreens.

I noticed, what I have often expressed a wish to see in our dear South, a great many ladies riding gracefully and others driving with skill, handsome spirited horses. The pretty and intelligent little daughter, of our host Dr. Sturtevant, met us at Framingham Station with a neat carriage and elegant trotting horse and drove us to his home from whence she had come all alone. She handled the ribbons with as much grace and self command as any of our boys of her age could do. Ladies thus brought up must be healthier and see more enjoyment in life and feel more independent than those who are reared as hot-house plants and faint on seeing a mouse, or scream if a horse rears up or a cow lows.

I fear I may tire you with too much about what I saw and thought when away from home, so I shall say nothing more on this subject until next month, except to recommend a very nice bread I ate, made of $\frac{1}{3}$ corn meal, $\frac{1}{3}$ rye and $\frac{1}{3}$ wheat flour; it is made with yeast or yeast powder, like other wheat loaves; it requires a little longer baking; it makes delicious toast eaten hot.

If possible this month set out bulbs of Crown Imperial, two sorts; single and double and polyanthus Narcissus; Iris of different sorts; Ranunculus; Anemones and Crocus, Cowslip, Lily of the valley, Snow Drops, Tulips and Hyacinths. These spring flowers are so early and so beautiful, being very hardy and requiring but little care beyond deep planting in rich light soil well drained, and a little protection in winter by covering with leaves or long manure.

BEEF PATTIES.—Chop fine, rare roast beef, season with pepper, salt and a little onion; make a plain paste, cut into shape like an apple puff, fill with the mince, and bake quickly.

A PLEASANT LETTER.

FROM R. D. O. SMITH.

COL. W. W. W. BOWIE, Editor MD. FARMER,

Dear Col:—In memory of our short acquaintance so pleasantly formed on the "Crane," apparently with the distinguished approval of Father Neptune, and with a sincere desire on my part, that we may not henceforth become again entire strangers. I have thought it might not be unacceptable to you if I employ some of the leisure moments while steamboating and waiting at rail road stations, in setting down some of the things which I shall see in my rather extended trip to the blue noses, cannucks, and suckers.

I am not a farmer, and if there is any one calling, about which I have less information than another, it is that of the horny handed husbandman. Therefore, what I shall say will have but little interest to you as farmer, and I can only appeal to you as "a man and a brother."

After our hasty dish of broiled blue fish, at the Crawford House, Boston, Dodge and myself soon found ourselves on board the City of Portland, in anticipation of stirring times soon to come. At the appointed time we parted with shore. The air was balmy and comfort demanded that we should seek shelter from the sun. Our course lay along the coast N. E., and had the fog god been entirely in pleasant humor, our pleasure would have been complete. As it was, a low and detestible fog hung upon the water inshore, and completely shut out our view of all except the top of the distant hills. Just before reaching Cape Ann, the mist thickened, and we were actually startled as we suddenly rushed out of the fog and found ourselves within a stone's throw of that dreadful rock, with its two giant pillars of granite. This cape juts straight out several miles to sea, and is a most dangerous spot for the storm tossed mariner. Two magnificent light houses have been erected upon its extremity, and the mellifluous fog horn sends forth its welcome music every minute when the mists comes over the water.

In the deep bay behind the cape nestles Ipswich, and a little further east is Newburyport, famous in times past for its foreign commerce. These two were revealed to us, and then the fog shut out all the shore, until we rounded Cape Elizabeth, and in a few minutes entered Portland harbor. We arrived at half past three in the afternoon, and our boat would remain until six. D. and myself went on shore, and spent an hour and more in a ramble over the city—which is built over a succession of eminences, and is two thirds surrounded by the waters of the harbor. It is a beautiful city,

full of elegant residences with gardens and elm lined streets. The harbor is one of the finest on our coast—completely land locked and with space for a thousand ships. At six o'clock we were again under steam and making out of the harbor, with dirty clouds and wind ahead, and thunder storms behind. At that time we had prospects of a tempestuous night, and as the Irishman *in* the hod said, when his mate was carrying him up the ladder on a wager, that he could'n't do it—As he passed the third story, "be jabers he had hopes," so we had hopes of a blow, but the wind hauled to the northward off shore (you see how nautical we become by a few days on the briny),

In the morning we found ourselves in a dense fog, but the steamer did not slacken speed, but kept paddles and whistler going.

At about 9 o'clock we were inside Grand Manan, the great headquarters of the fog manufacture. I am told, that somewhere thereabout, a fog mill is going almost all the while—we couldn't see it. At two we passed Quaddy Head—the most easterly point of Uncle Sam's possessions—It is a high and terrible rock, graced with a light house, painted with alternate bands of red and white, as though wrapped in our national colors. The tide being low, which means fifteen feet below the parlor floor, in that region, we were obliged to make a detour around Campobello Island, in order to get to Eastport dock.

We have no special objection to Campobello Island, but as it belongs to the *British*, we don't like being *compelled* to go around it—it really seems as though Father Neptune, has really gone over to the other side, and put his initials in lower case as a mark of my disapproval.

Half an hour sufficed for Eastport, about which I have little to say, except that it has a fish like smell. It is evidently a good harbor to make in a storm, and a good place to go away from when the wind is fair.

From Eastport to St. John, the coast is forbidding in the extreme. The rocks rise sheer out of the water, making it almost, if not quite impossible for the shipwrecked mariner to reach the shore alive.

At half past four in the afternoon we were fast to the wharf, and in the clutches of the blue nose custom-house officers—The examination of baggage is only formidable, because it is a bother to unstrap and show your trunks in the midst of a scrambling crowd.

At St. John we found shelter in the New Victoria Hotel, a house not imposing in appearance, but from all accounts rather less imposing in its practises than any other hotel in the city. If it

should ever be your fortune to get *blown off the coast*, and should find yourself finally in the harbor of St. John, I advise you to come to anchor at the New Victoria.

On this voyage we found ourselves in company with the Rev. Geo. Whittaker of Ipswich—a man of war, he belongs to the church Militant—and lately in commission as a flag ship. Under his convoy we immediately got under way for a cruise around town—He is at once a most agreeable companion and an able navigator. At the expiration of two hours but little of the outside of St. John remained unseen, and we returned to our fish and potatoes well satisfied that sleep would grace our eyelids that night.

Here ends our sea faring, so far as I am concerned—Dodge will go to *Halifax*, and I to a better place I trust. Our friend the Admiral returns to Portland in the same boat, starting in the morning.

St. John is built over a rocky penninsular with several transverse valleys. In many places native rocks forms the pavement, and cellars are excavated by blasting. The larger part of the city was destroyed by fire a few months ago, and is now in progress of re-erection—The exigencies of the climate require buildings of style different from the requirements of our climate, and to our eyes the effect is somewhat quaint. Thicker walls and less height of ceiling, impart an air of stability and solidity, which we seldom see in "the States." The architects of St. John are doing a good work, and when the reconstruction is completed, and streets become clear again, no city in North America will surpass St. John in the uniform good taste and excellent appearance of its buildings. I think one mistake is being made, and that is in permitting the apparently indiscriminate erection of wooden buildings.

On Wednesday morning at 9 o'clock, we embarked on the steamer David Weston for Fredrickton, distant by the river 84 miles; a very delightful trip, terminating at 4 o'clock in the afternoon.

The St. John river, is a noble river, with water the color of coffee, and for 50 miles navigable for the largest ships. For a few miles it winds along a narrow channel, between precipitous cliffs of lime stone. Great lumber mills and lime kilns, line its banks wherever they can find footing. For this is one of the great lumber marts of the world. A few miles above the city, the river widens out, and assumes almost the proportions of a lake. In fact an arm of the river extends off to the east, as far as the eye can reach, and with a width of three or four miles. For thirty miles or there about, after passing the rocky barrier, the shores rise from

the river bank with a gentle slope, and the land presents the general appearance of a New England landscape—plenty of stones for fencing, and fields susceptible of fair cultivation, and not much waste time on the hands of the farmer. The ordinary New England crops may be raised here, and the climate does not materially differ from that of Maine—If anything it is a little less rigorous, as the sea is more nearly contiguous.

Having passed about thirty miles, intervals begin to appear, and in a short time they are seen on one or both banks, extending apparently many miles back from the shore. The scene now reminds me of the lower Mississippi. Not much imagination is required to clothe with gray moss, the dropping elms which fringe the bank. These interval lands are rejuvenated every spring by the silt deposited by the overflowing waters, and they are almost entirely used as hay lands. About forty miles from St. John we pass the entrance to Grau Lake—a fine sheet of water some 20 or 30 miles in length, and from 5 to 10 miles in width.

The shores of the river and its navigable tributaries in many parts, form almost a continuous village for the buildings are commonly built near the shore, but the houses are very generally poor and small, and as a rule are unpainted, and do not bear the marks of thrift and enterprise. But to this rule there are many exceptions, in hand some and homelike cottages and farm houses. Several gentleman with whom I conversed, express great admiration for the government in "the States," and deplore the deficiencies of their own—They admit that they are a quarter of a century behind the times, but attribute to governmental shortcomings, what is more probably chargeable to defective character in the people themselves. Their chief agony is the sharpness of the "darn Yankees," who outwit them and underbid them at every turn. They have many manufactures, but not enough skill to do good work. People who, when they want to manufacture plows or reapers, are content to buy a yankee implement, and use its parts as *patterns*, rather than to study to adapt the implement to the peculiarities of their own soil or people, and thus *improve* upon their model, will hardly succeed in *leading* at home, or in successful competition abroad.

As I write we are passing a hay field, and half a dozen men are swinging the scythe. The fields on either side abound with hay makers, and are studded with hay cocks, but I have as yet, seen but one mowing machine, and no tedder or horse rake.

As we approach Fredrickton, for miles the banks, sometimes on both sides the river, are lined

with logs, thousands upon thousands of them. They are confined behind booms, formed of logs chained together, and apparently they float down from the head waters and are there caught and collected into rafts to be towed down to the mills at St. John. We saw the work of rafting going on. A number of logs are arranged side by side, and poles being laid across them; other logs are then rolled upon the first. A great number of these groups are then coupled together and taken in tow by a steamer for the lower mills.

[TO BE CONTINUED.]

THE ENGLISH COW MILKER.—In reply to an order for one of these little helps to the dairyman, to send to a subscriber in Georgia, who wants to test it, we received the following from that liberal Scotch gentleman and stock breeder of Long Island N. Y.,—"I send you one "English Cow Milker" by this mail which I hope will be received safe. You will please give the benefit of it to the readers of the Maryland Farmer, for the sufferers of yellow fever. With my best respects

WM. CROZIER.

Maryland Jockey Club.

The October meeting of the Maryland Jockey Club at their Pimlico course was more than a success, perhaps the most brilliant that they have ever had. The weather was fine, the track in elegant order and the races well contested by some of the best horses in this country. Thirty thousand spectators were on the ground during the four days racing. Each day there was a throng of beauty and fashion in the grand stand, at the club house and in elegant equipages on the grounds within the course. The club paid all its expenses and has a considerable sum left over to make additional improvements against next spring's meeting. Pimlico is now looked upon by turfites as the "Goodwood" of America. Long may its present great success continue.

DON'T.—These instructions from the *Forest and Stream* will be good to follow, even if you think it isn't loaded:—"Don't—point your gun at yourself. Don't point your gun at anyone else. Don't carry your gun so that its range includes all your hunting companions. Don't try to find out whether your gun is loaded or not by shutting one eye and looking down the barrel with the other. Don't Don't use your gun for a walking stick. Don't climb over a fence and pull your gun through muzzle foremost. Don't throw your gun into a boat so that the trigger will catch on the seat and deposit the charge into your stomach. Don't use your gun for a sledge-hammer. Don't carry your gun full cocked. Don't carry your gun with the hammer down. Don't be a fool. Don't forget it."

Feeding for Milk.

The most economical food for milk cows is a mixture of hay, meal and bran; and the most economical way of feeding these is to cut the hay, moisten it, and sprinkle the meal and bran over it. This gives some trouble, but it pays. From our own practice, we believe 25 per cent. of the feed is saved. One bushel-basket of cut hay, and 2½ quarts of corn meal and bran, mixed in equal portions, is a feed for a cow in good milk. To some cows more of the meal and bran may be given profitably; this must be found by testing the different cows. The above feed is for half a day—that is, is given twice in the day, making 5 quarts of the meal and bran daily. In addition to the above, a few pounds of dry hay or some roots may be given at noon.—*American Agriculturist*.

Loss in Grinding.

A correspondent of the *Country Gentleman* asks. What should be the proportion of product in grinding wheat—in flour, shorts and bran. Such inquiries show that farmers are beginning to study the details of their business as never before. I remember a fact that illustrates the former indifference of farmers to such details. Some years ago, on sending a very large "grist" to mill, requesting the miller to weigh the wheat in and the product out, he strongly objected to it as a suspicion on his honesty. It was an unheard of request; never had a farmer asked such a thing! But he got over his sensitiveness, and did the like many times.

The product and waste in grinding depends much upon the quality and cleanness of the wheat. I have had winter wheat turn out forty pounds of flour and twelve and three-fourth pounds of bran, middling, etc., to the bushel. The "waste" in grinding clean wheat should not be more than a pound to a pound and a quarter. Spring wheat will not make as much flour. The following from a "grist" of the last crop of spring wheat, is a good average of a dozen or more that I have noted:

Weight of wheat	1,486 pounds
" flour	952 pounds
" bran	240 "
" screenings	32 "
" middlings (canaille)	88 "
" toll	148 "
" waste	26 "
	—1,486 pounds

Here is twenty-four and three-fourth bushels, and the yield of flour is 38.45 pounds per bushel, and the offal amounts to 14.54 pounds per bushel,

while the waste is only 1.05 pounds per bushel. It is proper here to state that I sent a "grist" out of the same bin to a new mill, a few weeks before, and the return was only thirty-six pounds in flour, and the "waste" or wheat stuck to the mill, besides the toll, five and a half pounds to the bushel. I did not repeat my experiment at that mill.

Farmers should know precisely what they are doing, as far as possible, and then they will be able to "see as far into a millstone" as anybody.

Two Great Crops.

The United States produced last year a cotton crop worth about \$260,000,000, and a corn crop worth about \$583,000,000. Of a total agricultural product of \$4,000,000,000 the corn crop forms the largest item, being largely more than double the value of the crop which used to be called the King of American commerce. The King has now laid aside his purple robe and crown of jewels and become a highly respectable citizen, who is well received everywhere, but the whole of his estate is far less than that of his plebeian neighbor, Indian Corn, who enters into the business of society in a wonderful variety of forms. His guests sit down to a homely bill of fare, offering hominy, griddle cakes, egg bread, roasting ears, pudding, Johnny cake, pop-corn. He shows with pride his well-filled stock-yards of corn-fed beeves and porkers, which supply the home and foreign markets with the finest meat in the world, from the sweet beef-steak to the fragrant sugar-cured ham, fit for the table of a king. He has immense factories employed making starch and syrup, consuming millions of bushels. He runs great distilleries, which send out alcohol enough to float a fleet of war vessels, furnishing material to the arts, revenue to the government, rascality to the whiskey rings, and themes to the temperance lecturer,—*Louisville Commercial*.

SCRAPPEL.—Boil a hog's head one day, and let it stand five or six hours, or all night. Slip out the bones and chop fine; then return the meat to the liquor. Skim when first cold; warm and season freely with pepper, salt, sage and sweet herbs. Two cupfuls of buckwheat meal and one cupful of corn meal. Put into moulds, and when cold cut into slices and fry for breakfast.

MEAT LOAF.—Boil two pounds of veal or beef until tender, chop it very fine, add two eggs, six Boston crackers rolled fine, one tablespoon of salt one teaspoon of pepper, one teacup of water; pack in a pan and bake one hour. To be eaten cold, sliced thin. It is very nice for tea.



“Belle of Beaven,” Ayrshire Cow,

Owned by W. Crozier, Esq., Long Island, N. Y.

DEC 7 1878

